Navigation software

Navitel Navigator

User manual

(For personal digital assistant)

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1. Introduction

Navitel Navigator is a navigation software aimed at efficient search of the shortest route on a map. Voice hints will allow you to navigate the route, not paying attention to the display, and “Navitel. Traffic Jams” function will help you to overcome any formed traffic jam on your way.

This document is the user’s guide to the navigation program “Navitel Navigator”. It contains full information about the elements of the user interface, the basic functions of the navigation program, and also the right order of user’s actions in performance of typical operations.

2. General Info

GPS (Global Positioning System) is a satellite system for high-precision determination of static and moving objects. To successfully use the navigation software based on GPS technology, it is necessary to understand some peculiarities of this system.

GPS System also called NAVSTAR (NAVigation System using Timing And Ranging), is based on the satellites moving around the Earth on orbital trajectories. 24 satellites provide 100 % serviceability of the system in any point of the globe, but cannot always provide maximum reception and good calculation of a position. Therefore, for increase of accuracy of positioning and a reserve in case of failures, the greater numbers of satellites are maintained in orbit it is supported in a lot. The maximal possible number of simultaneously working satellites in system NAVSTAR is limited to 32.

GPS is a passive system of navigation which allows to receive signals of satellites, however excludes the possibility of transfering a signal. The signal of GPS satellites has frequencies of 1.227 and 1.575 GHz. It means, that metal and wooden surfaces, some kinds of plastic, concrete can block electromagnetic wave of such frequency. For this reason it is impossible to catch satellites in a ferro-concrete building, for this purpose it is necessary to change the location of the device to a more favourable for the reception of a signal.

Attention! The most precise results are got when the signal goes into an open area from at least 4 satellites at one time. Satellites should be uniformly placed in the sky and the navigator should be fixed.

The quality of position finding depends on that set of satellites which the device currently works with. If the receiver has an opportunity to choose the best signals from a variety of accepted, it will have a positive effect on quality of definition of coordinates.

If the choice is not possible, accuracy of work will be difficult to predict.

After activating the GPS-receiver the navigating system starts preparing for launch. Navigating messages transmitted from satellites contain two types of the data — ephemeris and the almanac of satellites. The almanac contains parameters of an orbit making possible to calculate an approximate location of the satellites but with rather big error.

The almanac is stored in memory of the receiver and constantly updates, since each satellite transfers the data of the almanac for the entire group of satellites. The almanac's lifetime makes 2-3 months. Further, the size of the integrated error in calculations will be inadmissible.

Ephemeris data contains parameters which allow to calculate current location of the satellites more precisely. Unlike the almanac, each of the satellites transfers only it's own ephemeris. Ephemeris lifetime does not exceed 4-6 hours.

The received information on the ephemeris and the almanac data is constantly corrected. It occurs once a day (and more if necessary). The network of ground stations receives the information from satellites and analyzes measurements similar to regular users then compares it with main data followed by adjusting amendments calculation and transferring them to the main station from which data transmission to satellites is carried out.

Starting process time necessary for the navigating receiver to define the position after activation depends on the initial information available in memory. There are several modes :

- "Cold start" — time, position, almanac and ephemeris are unknown. The possible reason is the device being switched off during long time (more than 70 hours) or his(its) moving in the switched off condition on the big distance. In this case it is necessary for the device to load the new almanac and ephemeris. This process can last for more than 20 minutes.

- "Warm start" — position and ephemeris are unknown, time and the almanac are known. The device begins data gathering about ephemeris then can carry out a fixing. Usually "Warm start" lasts for some minutes.

- "Hot start" — the almanac, ephemeris are known, time and a position are known with some mistakes. This is the fastest kind of system start and it is accessible if the device was switched off for less than 4 hours. Last data is actual except for small inaccuracies which the system eliminates in less than a minute.

Navitel Navigator is a navigation software developed for personal navigation devices (PND), pocket PC and PDA working on OS Windows Mobile and equipped with the built-in or external GPS-receivers.

The Software allows loading detailed maps of cities and regions containing house numbers, street names, metro stations and other important information. Among other things, the satellite navigation software supports voice guidance on a chosen route. The software is optimized for small PDA screen resolutions, it has fast map scaling and scrolling, as well as automatic switching between maps having various scales.

Advantages of the Navitel Navigator in comparison with other similar software:

1. Fast map scaling and scrolling;
2. Maps auto switching;
3. Possibility to choose map orientation — on a direction of movement, on a direction of a route or on a direction to the north;
4. Fullscreen mode;
5. Apart from 2D map viewing mode, there is also the pseudo 3D mode, which supports three-dimensional image of road overpasses and significant objects of architecture;
6. Pop-up help;
7. Supports traffic jams information upload.

The primary functions of the program are: acquisition and display of current position on map, automatic and manual route creation, various objects search options, calculation and display of a plenty of the travelling information, display and record of a trajectory of movement as a track and many other things.

3. Technical requirements

Device operating system:

1. iOS;
2. Windows Mobile 5.0;
3. Windows Mobile 6.0;
4. Windows Mobile 6.1;
5. Windows Mobile 6.5;
6. Android OS 1.5 or higher;
7. Symbian OS;
8. Samsung Bada OS.

RAM:

From 10 MB of operative memory (depends on the size of the loaded map).

Display:

1. Min. resolution: 240x240
2. Max. resolution: 1280x800

GLONASS/GPS-receivers:

1. NMEA-0183 protocol;
2. SiRF binary protocol;
3. Garmin protocol;
4. External receivers can be connected via serial port, USB, BlueTooth, CompactFlash, SDIO

4. Navitel Navigator installation

4.1. Software installation

4.1.1. Windows Mobile installation

1. Prepare a blank flash card and insert it into the device (Fig. 1) (The flash card may not be included in a packaging arrangement);

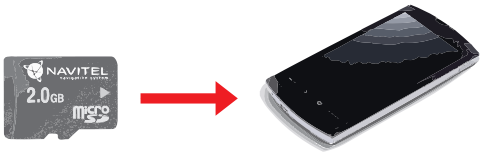


Fig. 1

2. Connect the device to a PC using the USB cable (Fig. 2). Please, use the MS ActiveSync software to synchronize the PC and the device (If you are using Windows Vista or Windows 7 please use the Mobile Device Center software). You can find the last version of the software at www.microsoft.com;

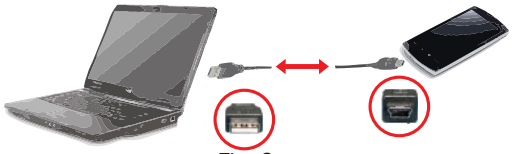


Fig. 2

3. Insert the Navitel DVD into your PC (Fig. 3) and wait for the autorun to launch. Use the Exlporer and run the autorun.exe file if the autorun window didn't appear;

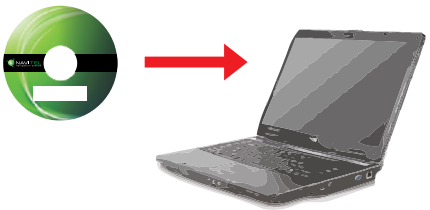


Fig. 3

4. Select the “Software installation” in the starting screen and press the “Windows Mobile installation”. You can also use the Exlporer to open the \Install\Navitel Navigator\WinMobile\NaviTel-setup_PPC-x.x.x.xxx.exe;

5. Next screen holds the list of the system requirements needed to install the software. Press the “Next” button;

6. Next screen is the license agreement. Please read it and check the “I Agree” item if you accept all the terms listed. Press “Next” to continue;

7. Select the components which you wish to install on your device. “Navitel Navigator” is selected by default;

8. The components transfering process will begin;

9. After the components transfering process is finished you will see a message on the screen. The installation will countinue on the device now;

10. You will be offered to select the install destination: “\Flash Disk” or “\Memory Card” if your device model supports such. It is recomended to select the “\Memory Card”. “\Memory Card” can be named differently. For example Storage card or SD-card;

11. The installation process will now begin;

12. Press the “Ok” button after the installation process is finished.

4.1.2. Android installation using DVD

1. Go to the “Settings” —> “Applications” menu and check the “Unknown sources” item (Fig. 4). This will allow to install the Navitel Navigator software on the device;

Fig. 4

2. Go to “Settings” — “Location” and check the “GPS satellites” item. This will allow the usage of GPS satellites for possitioning apart from GSM base stations (Fig. 5)

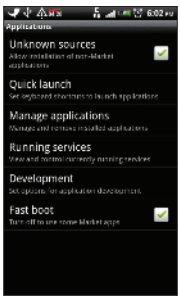


Fig. 5

3. Connect your device to the PC using the USB-cable (Fig. 6);

Fig. 6

4. Insert the Navitel DVD into your PC DVD-rom (Fig. 7) and wait for the start window to appear. If the start window didn't appear, please use the Explorer to run the autorun.exe file on the DVD (Fig. 19);

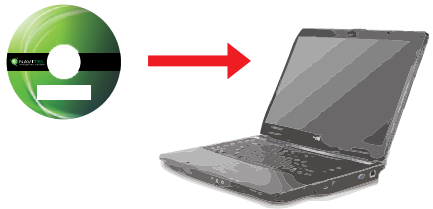


Fig. 7

5. Select the "Software Installation" in the installation window and select the "Andriod" item. You can also use the Explorer to launch the Navitel-5.x.x.xxx.exe file in "\Install\Navitel Navigator\Android\" catalog.

6. Please read the system requirements and press "Next" to copy the installation components to the device;

7. The installation process will begin on the device (Fig. 8). Press "Install";

8. You will see information screen (Fig. 9) after the installation process is finished. Press an "Open" button to launch the application, or a "Finish" one to close the window;

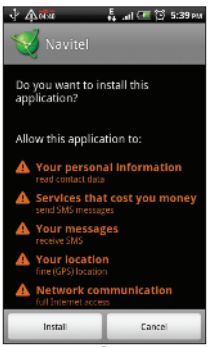


Fig. 8

Fig. 9

4.1.3. Android installation using Play Store

1. The Internet connection is required for this installation (GPRS, 3G, Wi-Fi or any other). The installation file size is more than 10Mb so it's recommended to use a Wi-Fi connection.

2. Start the "Play Store" application from the device menu. (Fig. 10)

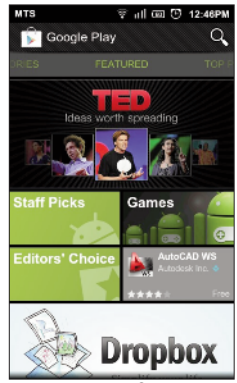


Fig. 10

3. Press the "Search" button and type "Navitel" in the appeared window. Select the "Navitel Navigator" item from the found software. (Fig. 11);

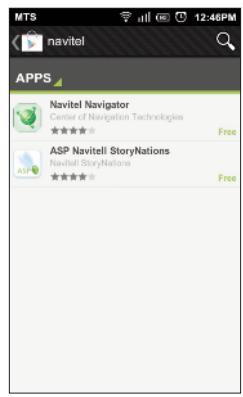


Fig. 11

4. The window with an information about the program will appear. (Fig. 12). Learn it and select the “Install” item;

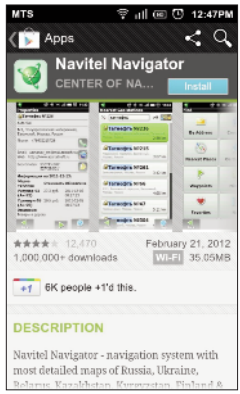


Fig. 12

5. This window (Fig. 13) shows which of the system functions are used by the Navitel Navigator. Press the “OK”button to continiue;

6. The download and install process will begin. You can control on them in the “Downloads” menu in the “Market” application (Fig. 14).

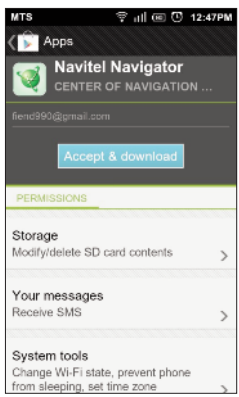


Fig. 13

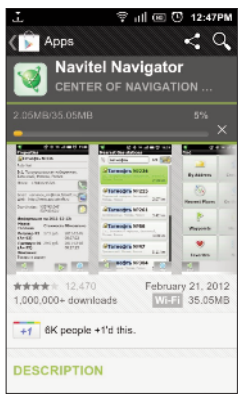


Fig. 14

4.1.4. Symbian OS installation

1. Go to http://navitel.su/download/ and download the installation file for Symbian OS named “navitel_X.x.x.xxx.sis” (Fig. 15);

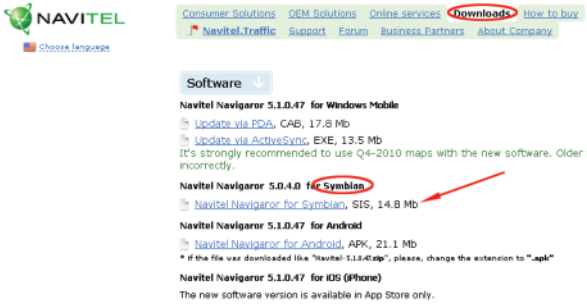

NAVITEL
Choose language
Consumer Solutions
OEM Solutions
Online services
Downloads
How to buy
Navitel.Traffic
Support
Forum
Business Partners
About Company
Software
Navitel Navigator 5.1.0.47 for Windows Mobile
Update via PDA, CAB, 17.8 Mb
Update via ActiveSync, EXE, 13.5 Mb
It's strongly recommended to use Q4-2010 maps with the new software. Older maps can work incorrectly.
Navitel Navigator 5.0.4.0 for Symbian
Navitel Navigator for Symbian, SIS, 14.8 Mb
Navitel Navigator 5.1.0.47 for Android
Navitel Navigator for Android, APK, 21.1 Mb
* If the file was downloaded like "Navitel 5.1.0.47.zip", please, change the extension to ".apk"
Navitel Navigator 5.1.0.47 for iOS (iPhone)
The new software version is available in App Store only.

Fig. 15

2. Copy the “navitel_X.x.x.xxx.sis” to your SD (microSD) card and insert it into your device (Fig. 16);

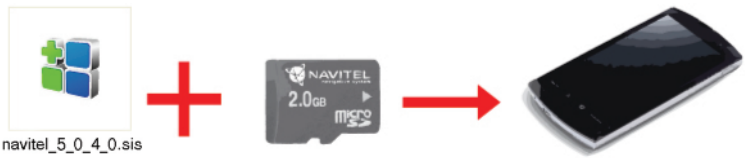


Fig. 16

3. Open the memory card on your device (“Menu” — “Tools” — “File mgr” — “Memory Card”) ;

4. Find the “Navitel_X.x.x.xxx.sis”, press “Functions” — “Open”;

5. You will see a notification about the installation. Press “OK”;

6. Choose a place for install. Ensure, that there is more than 15Mb of a free space;

7. Wait for the end of the installation.

4.2. Maps and components installation

1. Select the “Maps installation” item in the installation screen or use the Exlporer to open the DVD content;

2. Remove the memory card from the device and use a card-reader device connected to a PC to access the memory card storage. You can also change the device connection method so it can be connected to a PC as a card-reader;

3. Copy the “NavitelContent” folder to the root catalog of the SD-card;

Note: “NavitelContent” folder holds:

- License — folder with license files;
- Maps — folder with map files;
- Models — 3D models;
- Tracks — exported routes;
- Skins — optional skins;
- Speedcams — speedcams file (speed bumps, police posts, etc.);
- Voices — optional voice packages.

4. Return the memory card to the device if you used an external card-reader (Fig. 17);

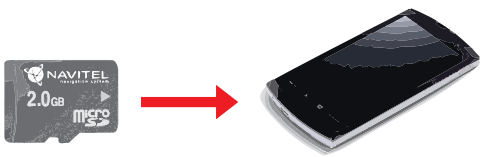


Fig. 17

4.3. Navitel Navigator registration

4.3.1. Software online registration

1. Make sure that the device have an active connection to the Internet (GPRS, Wi-Fi or any other);
2. Run the Navitel Navigator on your device;
3. Select the “Complete mode” in the registration window (Fig. 18);

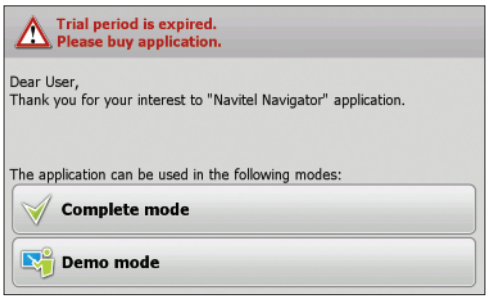

Trial period is expired.
Please buy application.
Dear User,
Thank you for your interest to "Navitel Navigator" application.
The application can be used in the following modes:
Complete mode
Demo mode

Fig. 18

4. Press on the blank field (Fig. 19) to open the digital keyboard (Fig. 20) and enter a license key for the software. Press the “Ok” button to confirm;

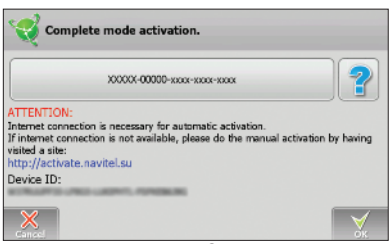


Fig. 19

Fig. 20

4.3.2 Web registration

1. Please, register at the http://navitel.su/ (Fig. 21);

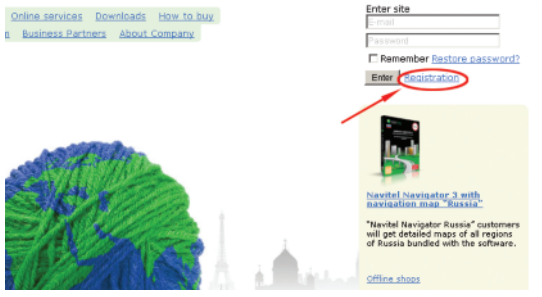


Fig. 21

2. Enter the site using your login and password (Fig. 22);

Fig. 22

3. Enter the “Activate a key” section, select the “Activate software key” option, enter the device’s name, ID and a license key for the Navitel Navigator (Fig. 23);

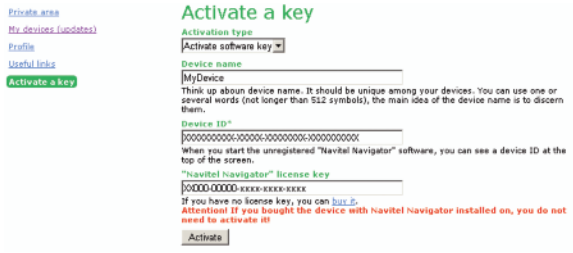

Private area
My devices (updates)
Profile
Useful links
Activate a key
Activate a key
Activation type
Activate software key
Device name
MyDevice
Think up aboun device name. It should be unique among your devices. You can use one or several words (not longer than 512 symbols), the main idea of the device name is to discern them.
Device ID*
When you start the unregistered "Navitel Navigator" software, you can see a device ID at the top of the screen.
"Navitel Navigator" license key
If you have no license key, you can buy it.
Attention! If you bought the device with Navitel Navigator installed on, you do not need to activate it!
Activate

Fig. 23

4. Press the “Activate” button;

5. Enter the “My Devices” section and download the activation file (Fig. 24);

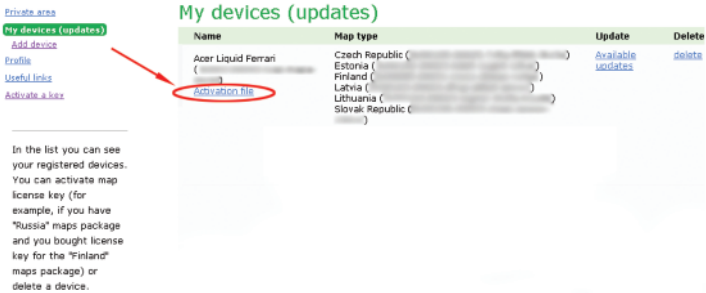


Fig. 24

6. Copy the “Navitel Activation Key.txt” file to the \NavitelContent\License\ folder on your device’s flash card.

5. Interface

5.1. “Drive” interface

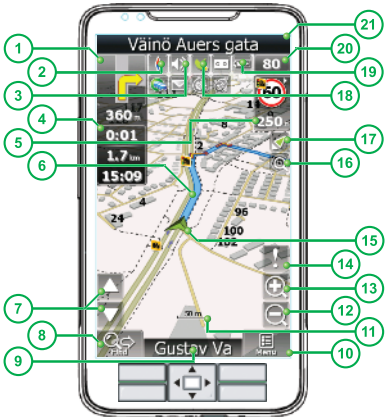


Fig. 23

This figure shows all the interface elements. Device used for this example is not default, recommended or advertized. Model you use and it's screen orientation may be different from this figure but element's functionality will remain the same.

#	Name	Function
1	Next maneuver	A next maneuver on the way and a distance up to it. Press this icon to open a route options menu
2	Compass	Press the compass icon to edit the map rotation mode, the map view and the day/night mode.
3	Sound	Press this button to open the sound effects menu.
4	Information panels	Displays a time until the end of the trip, a total route length, and an arrival time.
5	Speedcam window	When you approach a speed camera with visual warnings activated the window will appear in upper right corner of the screen. This window shows you permitted speed and distance left. Press the window to turn On/Off speed exceeding sound warnings.
6	Route	A route you are currently navigating displays as a wide blue line.

#	Name	Function
7	Map slope	Press "Up"/"Down" to slope the map. Available if the scale is between 5 and 300 m only.
8	Search	Press this button to enter the search menu and to find a specific address or object (you can find more info about Search in "Functionality" section).
9	Information panel	Shows the name of the street you are currently driving along. Available only if GPS/GLONASS connection is established. If there is no street name, the direction will be shown.
10	MENU	Press to enter the Main Menu.
11	Scale	Map current scale.
12	Zoom Out	Decrease a map scale.
13	Zoom In	Increase a map scale.
14	Navitel.Events	Press this button to place an event message on the map. Learn more at the chapter 8.10 Navitel.Events for an additional information.
15	GPS-cursor	If GPS connection is established displays your current location.
16	Autoscale	If you zoom in/out with "Autozoom" function activated, this function will be deactivated for a period according to settings. Press this button to activate the "Autozoom" function manually.
17	Return to current location	You can see the green arrow at the top of the screen if the map was moved relative to your position. Press it to return view to your current location.
18	GPS	GPS connection button. Green icon - connection enabled, white icon - function disabled. Green icon also has a dot of different color: red - no connection, yellow - poor connection, green - connection established.
19	Battery	Icon displays a battery life. Press it to open a window with a full information about a battery life and remaining memory.
20	Speed	Current speed. Available with a GPS connection established only.
21	Information panel	Street name followed by the next maneuver.

5.2. “Map” interface

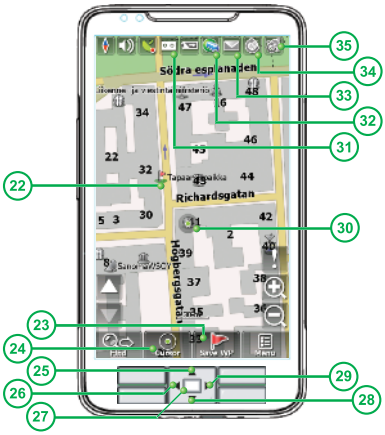


Fig. 24

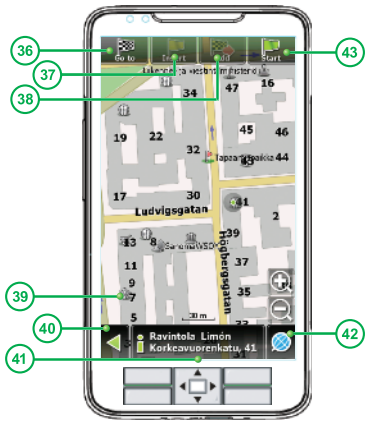


Fig. 25

#	Name	Function
22	Waypoint	Waypoints are manually created by the user and display with red flags on a map.
23	“Save WP”	Saves the current mark on map as a waypoint.
24	“Cursor”	Shows the menu of a mark on the map (Fig.54)
25	“Up”	This button is used to zoom in on the "Map" page, to move up the route points list on the "Route" page, to change number of windows on "Dashboard" page and to move up in the Main Menu.
26	“Left”	The "Left" button is used to switch pages ("Map", "Satellites", "Dashboard", "Route", “Weather”). Page up.
27	Center button	Toggle fullscreen on the “Map” page. Hold down the botton to create a waypoint in current location. Clockwise the wheel — Zoom In, backing the wheel — Zoom Out. Select an item in the Main menu.

#	Name	Function
28	“Down”	This button is used to zoom out on the "Map" page, to move down the route points list on the "Route" page, to changethe number of the windows on the "Dashboard" page and to move down in the Main Menu.
29	“Right”	"Right" button is used to switch pages ("Map", "Route", "Dashboard", "Satellites", “Weather”). Page down.
30	Mark on the map	Touch the screen with a stylus to set a mark. You can save this mark as a waypoint, add it to the route or see an object’s characteristics on which the mark was set on.
31	Track record	Track record. Green icon — track record enabled, white icon — function disabled. You can find more info about track recording in "Functionality" section of this manual.
32	Traffic Jams	Press this icon to set up the "Navitel.Traffic Jams" function.
33	Navitel.SMS	This button is used to read/send SMS-messages and to work with coordinates given there. Figure near the icon displays a number of unread messages.
34	Software update	This button shows if any updates are available.
35	Maps update	Allows you to enter the maps update menu.
36	“Go To”	“Mark on the map” becomes the end point of the route.
37	Insert	“Mark on the map” becomes the middle point of the route
38	“Add”	“Mark on the map” becomes the end point of the route, whereas previous end point becomes middle point.
39	Object of interest	Different objects on the map (traffic lights, metro stations, petrol stations etc.).
40	Back	Depends on way you got to this screen (Fig. 25), returns back to “Map” screen or to the find menu.
41	Info	Info about a current “Mark on the map” position. Tap it to see more.
42	Back to map	Returns to the “Map” page
43	“Start”	“Mark on the map” becomes the start point of the route. You should turn off your GPS/GLOANASS-reciever.

Warning!: Set of buttons that you see on display depends on the interface settings. To edit this settings, go to the Main Menu — Settings — Interface. You can find more information about interface settings in the "Main Menu" section.

6. Pages

6.1. “Map” page

The "Map" page (Fig. 26) is used to display your current location on a map and carries most of the road information. You can create and edit routes, waypoints, search for objects and many other things.

Fig. 26

6.1.1. Map scrolling

Press and hold it in any point on a map and drag the map to any side of screen. After this a new zone of the map will be revealed.

6.1.2. Zooming

You can zoom in with the “ “ key and zoom out with the “ “ key. The scale is set to 5 meters with maximum zoom and is set to 2000 km, with minimum zoom. It is possible to set the scale to 5 m, 8 m, 12 m, 20 m, 30 m, 50 m, 80 m, 120 m, 200 m, 300 m, 500 m, 800 m, 1,2 km, 2 km, 3 km, 5 km, 8 km, 12 km, 20 km, 30 km, 50 km, 80 km, 120 km, 200 km, 300 km, 500 km, 800 km, 1200 km and 2000 km. Press the “ “/” “ key ones to change the scale to the next/previous value. You can also hold down this keys to change the scale quickly.

6.1.3. Map slope

Press the “ “/” “ arrows to change the map slope. The “ “ arrow increases the slope. When map reaches the maximum slope it switches to pseudo-3D mode which works only on scales from 5 m to 300 m. The “ “ arrow decreases the slope. A possible map slope depends on its scale — the closer the map is, the more slope you can get.

6.1.4. GPS-cursor

GPS-cursor displays on map with GPS-connection established and shows your current location on map. Cursor can take 1 of 2 states: "Moving" ( ), or "Stop" — ( ). Green arrow points at current direction. If movement speed is less than 2,5 km/h cursor changes to green circle. And if GPS-connection is missing or "Off", the GPS-cursor will not display.

6.1.5. Compass

Press the button to open the map settings menu (Fig. 27).

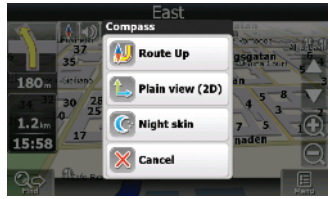


Fig. 27

6.1.5.1. Map rotation

- Route rotation;
- Guidance rotation;
- North up (Static mode).

6.1.5.2. Map view mode

- 3D view mode;
- 2D view mode.

Note: 3D mode is inaccessible if the scale is more than 300 m.

6.1.5.3. Day/Night view mode

This option allows you to switch between day and night view modes. Use night view mode when it is dark. It will protect your eyes from tiredness and make the device more comfortable to maintain. You can set this option to one of three positions.

- Day view mode (Fig. 28);
- Night view mode (Fig. 29);
- Automatic mode allows the device to switch between day and night view modes automatically subject to sunrise and sunset time in your region and when entering a tunnel.

Fig. 28

Fig. 29

6.1.6. Information pannel

There are several information panels on the “Map” page. The bottom panel displays a current street name or a driving direction (Fig. 30). The top panel shows a street name followed by the next maneuver (Fig. 31).

Note: a control panel or an information screen can occupy the bottom of the screen. To hide just put a mark anywhere on a map or press the map button.

While you navigate a route you can see an information panel in the left side of the screen displaying a next maneuver icon, calculated travel time, route overall length and destination achievement time. Press the next maneuver icon to display a route settings menu.

Note: The set of buttons in this menu depends on a demo mode: is it on or off? If you press the maneuver icon with demo-mode turned Off, you will see a Fig. 32 (a). Otherwise you will see a Fig. 32 (b).

More information on working with routes can be found in “Functionality” section of this manual.

Fig. 30

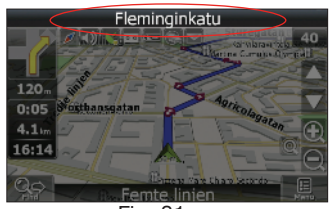


Fig. 31

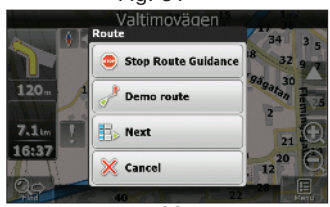


Fig. 32 (a)

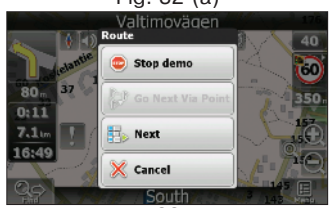


Fig. 32 (b)

6.2. “Dashboard” page

A “Dashboard page” (Fig. 33) is used to display various navigational info. It consists of a number of windows consisted of different types of information. Windows layout depends on a screen type and orientation. You can control a windows display mode by moving joystick “Up”/”Down”. The “Previous page” button (“Route page”) is located in the bottom left side of the screen and the “Map” page button is in the bottom right corner.

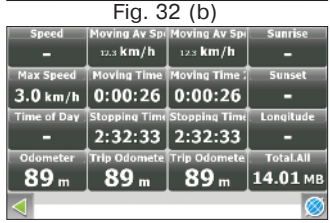


Fig. 33

Choose an item and press on it. The “Dashboard” page settings menu will appear on the screen (Fig. 34):

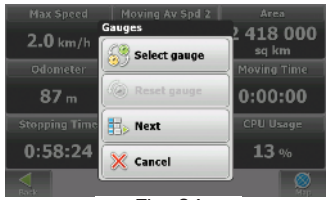


Fig. 34

- Select gauge — select a gauge from the list. New gauge will replace the one you selected to an open settings menu. Gauges are separated into groups to ease the search. Detailed info on the each gauge can be found in the “Gauge list” table;
- Reset gauge — resets the current gauge. System will demand an acknowledge;
- Reset all gauges — reset all the gauges. System will demand an acknowledge;
- Default gauges — apply a default set of gauges. System will demand an acknowledge.
- Big/Small dashboard — Each gauge increases/decreases in size at the cost of an overall number of the gauges on the screen. System automatically chooses the most common gauges to display, but you can create a set manually.

6.2.1 Gauges list

Name	Function
1. Trip computer 1	
1.1. Stopping time	Overall number of stops made since last trip computer reset.
1.2. Moving time	Overall moving time since last trip computer reset.
1.3. Measurement time	Overall measurement time since last trip computer reset.
1.4. Trip Odometer	Distance passed since last trip computer reset.
1.5. Overall Av Spd	Avarage speed including all the measurement time period since last trip computer reset.
1.6. Moving Av Spd	Avarage speed including only movement time since last trip computer reset.
2. Trip computer 2	
2.1. Stopping time. (2)	Overall number of stops made since last trip computer reset.
2.2. Moving time (2)	Overall moving time since last trip computer reset.
2.3. Measurement time (2)	Overall measurement time since last trip computer reset.
2.4. Trip Odometer (2)	Distance passed since last trip computer reset.
2.5. Overall Av Spd (2)	Avarage speed including all the measurement time period since last trip computer reset.
2.6. Moving Av Spd (2)	Avarage speed including only movement time since last trip computer reset.

Name	Function
3. Max values	
3.1. Max Descent	Maximal descent speed measured since last gauge reset
3.2. Max Ascent	Maximal ascent speed measured since last gauge reset
3.3. Max speed	Maximal speed measured since last gauge reset
3.4. Min Altitude	Minimal altitude measured since last gauge reset
3.5. Max Altitude	Maximal altitude measured since last gauge reset
3.6. Odometer	Overall distance travelled (unresetable gauge)
4. Navigation	
4.1. 5 s Ave.Speed	Average moving speed for the last 5 seconds
4.2. Bearing	Next waypoint azimuth relative to current location
4.3. Waypoint Final	Final waypoint name
4.4. Waypoint Next	Next waypoint name
4.5. To final point	Distance between final waypoint and current location
4.6. To the next point	Distance between next waypoint and current location
4.7. ETA Current	Next waypoint arrival time estimation
4.8. ETE Final	Final waypoint moving time estimation
4.9. ETE Current	Next waypoint moving time estimation
4.10. ETA Final	Final waypoint arrival time estimation
4.11. Next Turn	Next maneuver on active route and distance left
4.12. Pointer	Nearest waypoint pointer and distance to it
4.13. Time zone	Current location time zone
4.14. VMG	Next waypoint approaching speed
4.15. Sunset	Sunset time for current location
4.16. Sunrise	Sunrise time for current location
5. GPS data	
5.1. Date GMT	Greenwich GPS data
5.2. Time GMT	Greenwich GPS time
5.3. Date	Formed date according to GPS and recalculated to local time
5.4. Time of day	Formed time according to GPS and recalculated to local time
5.5. Speed	Comparative moving speed
5.6. Longitude	WGS-84 longitude (or any other datum GPS-receiver works with)
5.7. Latitude	WGS-84 latitude (or any other datum GPS-receiver works with)
5.8. Heading	Comparative moving direction azimuth. Magnetic azimuth if using magnetic compass and NMEA-0183 protocol.

Name	Function
6. Altitude	
6.1. Vertical Speed	Current vertical speed
6.2. Climb angle	Angle between current driving direction and horizontal level
6.3. Glide Ratio	Horizontal speed comparative to vertical speed. Available only if using Garmin and SiRF protocols.
6.4. Height of Geoid	Geoid's height (average sea level) above WGS84 ellipsoid
6.5. Altitude	Altitude above geoid (above sea level)
7. GPS data precision	
7.1. Vertical EPE	Vertical coordinate precision with 95% probability. Available only if using Garmin protocol
7.2. VDOP	Vertical coordinates precision deterioration factor reflecting geometric satellites configuration. Value exceeding 10 means low precision. Available only if using NMEA-0183
7.3. Magnetic Variation	Magnetic Variation — difference between true meridian (north direction) and magnetic. Available only if using NMEA-0183 protocol
7.4. Used Satellites	Number of satellites used during last position determination
7.5. EPE	Horizontal coordinates precision, 95% probability. Available only on Garmin devices.
7.6. HDOP	Horizontal coordinates precision deterioration factor reflecting geometric satellites configuration. Value exceeding 10 means low precision. Available only if using NMEA-0183
7.7. GPS Fix Quality	Coordinates determination method – 3D (all coordinates are known), 2D (only horizontal coordinates are known), differential, etc.
8. DGPS Data	
8.1. DGPS station	Number of station used to make differential correction data
8.2. DGPS age	Time passed from last received differential correction data
9. Area	
9.1. Area	Figure area consisting of motion path and a section, connecting start and end points.
10. Sonar data	
10.1. Temperature	Water temperature. Available only if NMEA-0183 protocol compatible temperature sensor is connected
10.2. Depth	Depth. Available only if NMEA-0183 protocol compatible sonar is connected

Name	Function
11. Map	
11.1. Rendering 3D	TIme spent for rendering 3D models
11.2. Indexation	Atlas last loaded indexation time
11.3. Check atlas time	Time spent to check atlas integrity
11.4. First element search	Time spent to find first object from “Nearest places”
11.5. First element search (city)	Time spent to find first object “City”
11.6. First element search (street)	Time spent to find first object “Street”
11.7. First element search (building)	Time spent to find first object “Building”
11.8. Map infotip	Time spent to find nearest object on a map to display pop-up help window after pressing it using stylus
11.9. Maps in Cache	Current number of maps loaded in cache. This value affects on consumable memory
11.10. Map Zoom Level	Map detalization level (0—maximum detalization)
11.11. File name	Map file displaying at the moment. If several map files are in use, only one of them will be displayed in this gauge
11.12. Map Rendering	Number of maps rendering on the screen
11.13. Blocks	Number of rendered blocks
11.14. Labels in objects	Number of labels on the map after rendering
11.15. Points in objects	Number of points in objects rendered on a map
11.16. Objects	Number of points/polylines/polygons appeared on a screen after last rendering
11.17. Text redraw	Text redraw time
11.18. Label redraw	Label redraw time calculation
11.19. Routes Rendering	Time spent on last route rendering
11.20. Wpts Rendering	Time spent on last waypoints rendering
11.21. Trk Rendering	Time spent on last track rendering
11.19. Jams Draw.	Time spent on last traffic jams rendering
11.20. Map Rendering	Time spent on last map rendering. If the value exceeds 1 second, the special map optimization is required.
11.21. Map Opening	Map opening time
11.22. Map Covering	Current map and region match time

Name	Function
12. System	
12.1. Routing	Time spent on autorouting
12.2. Redraw	Image redraw time
12.3. Data Failures	Number of failures during GPS-data receiving. If this value is increasing, poor electrical contact may have occured
12.4. Battery	Main battery charge (value determined by operational system)
12.5. Free Memory	Amount of RAM available to run aplications.
12.6. Lock on Road	Time spent on finding an anchor point to lock on road
12.7. Initialization	Program loading time
12.8. CPU Usage	Amout of CPU resourses involved in runing process
12.9. Clock Fix-ups	System time adjustment counter with GPS time
12.10. Clock Drift	Current system time deviation
12.11. Kalman	Kalman filter working time (used to boost position finding precision)
12.12. Current Phone Cell	Code of current GSM cell. It is used for netmonitoring and consists of MCC (Mobile Country Code), MNC (Mobile Network Code), LAC (Local Area Code) and CELL ID.
13. Weather	
13.1. Temperature	Current temperature
13.2. Pressure	Current pressure
13.3. Wind	Wind speed and direction
13.4. Cloudiness	Current precipitation
13.5. Weather forecast+1 day	Weather forecast for tomorrow
13.6. Weather forecast+2 day	Weather forecast for the day after tomorrow
13.7. Weather forecast+3 day	Weather forecast for 3-rd day
13.3. Weather forecast+4 day	Weather forecast for 4-rd day
13. Internet traffic	
13.1. Total.All	Overall internet traffic from the first program initialization
13.2. Outgoing. All	Outgoing internet traffic from the first program initialization
13.3. Incoming. Total	Incoming internet traffic from the first program initialization
13.4. Total. Current	Overall internet traffic from the current program initialization
13.5. Outcoming. Current	Outgoing internet traffic from the current program initialization
13.6. Incoming. Current	Incoming internet traffic from the current program initialization

6.3. “Satellites” Page

A “Satellites” page (Fig. 35) is used to display GPS/GLONASS signal status, number of satellites and their position. Schematic sky map with directions is in the upper left corner of the screen.

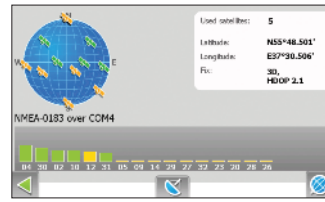


Fig. 35

Note: GLONASS receiver is necessary to show GLONASS signal status.

Hemisphere center corresponds with zenith and circumference – with horizon line. If GPS-connection is enabled, satellites are displayed on the hemisphere as green and yellow icons. Green color means higher quality than yellow. You can see current data transfer protocol and COM-port used under the hemisphere.

At the bottom of the page there is a graphical scheme with information on satellites. Signal strength is displayed with green and yellow columns with personal satellite number under each column. The higher the column is, the stronger signal is being received by this satellite.

In the right side of the screen you can see some useful information:

- Latitude and longitude.
- Number of satellites used. This value is determined by GPS-receiver. Only 12 satellites can be used at the same time.
- Coordinates determination method.

There are three buttons at the bottom of the page. Green arrow – move to previous page (“Dashboard” page), central button – GPS settings menu, and globe icon – move to “Map” page.

If Navitel Navigator is minimized, Navitel plug-in for “Today” screen displays GPS-connection status. Yellow icon means GPS-connection is established, but position is not determined. Green icon – GPS-connection established and position is known.

Note: this function is avaliable on Windows Mobile-based devices only if it’s on and supported.

Note: to activate this icon, press “Start” — “Settings” — “Today” — “Element” and check “Navitel Today” item. Press “Ok” to apply changes made. For more information about “Today” function, please refer to user guide supported with your device..

6.4. “Route” Page

The page (Fig. 36) is available with active route only. It shows all the route’s maneuvers. Detailed information about the next maneuver is at the top of the page. You can see a list of maneuvers with destination and street names below it. Also, there are 4 gauges in the “Next maneuver” information window. The default gauges are: ETA Final, ETE Final, To Final Point and Speed. You can select another gauge by pressing any gauge to open a popup menu (Fig. 37):

- Select gauge — select a gauge from list. New gauge will replace the one you selected to open settings menu. Gauges are separated into groups to ease the search. A detailed info on each gauge can be found in “Gauge list” table;
- Reset gauge — reset current gauge. System will demand an acknowledge.
- Reset all gauges — reset all gauges. System will demand an acknowledge.
- Default gauges — apply a default set of gauges. System will demand an acknowledge;

More information on using gauges you can find in the 9.2. “Dashboard page” section.

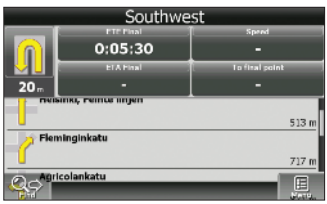


Fig. 36

Fig. 37

Press the current maneuver icon in the top left side of the screen to enter route settings menu. The set of buttons in this menu depends on demo: is it on or off? If you press the maneuver icon with demo-mode turned On, you will see Fig. 38 (a). Otherwise you will see Fig. 38 (b). Followed functions are presented in this menu:

- Stop Route Guidance;
- Demo route;
- Go Next Via Point;
- Show route;
- Maneuvers;
- Settings.

Note: detailed information on working with this menu can be found in the 8.1. “Routes” section.

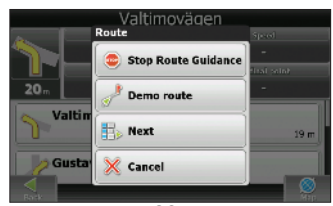


Fig. 38 (a)

Fig. 38 (b)

6.5. “Weather” page

The “Weather” page (Fig. 39) is used to show a weather forecast for a few days and to show a current weather too. At the top of the page you can see an information about the current weather, pressure, wind speed and direction. In the right side the weather forecast for four days is displayed. The “More” button will open the GISmeteo.ru page in your default browser.

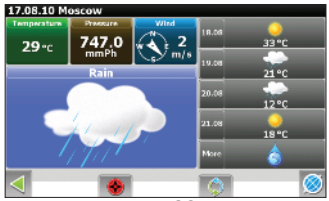


Fig. 39

By defaults, the weather forecast will be shown for the town, which is nearest to the GPS position. If GPS is not connected, the forecast will be shown for the town which is nearest to the center of the map.

At the bottom of the screen you can see these buttons:

“City select” — using this button you can change the city (Fig. 40);

“Refresh” — refresh the forecast manually.

Fig. 40

Instead of a manual refresh, you can set an automatic refresh.

Note: information about the setting of an automatic update can be found in the chapter 7.5.4.5 “Weather”.

7. Main Menu

You can find the Main Menu icon ( ) in the bottom right corner of the “Map” and “Route” pages. Press it to open system main menu and carry out any changes or see information you require. In the bottom of every menu page you can find 2 buttons: green arrow ( ) – return to previous menu page, globe icon ( ) – move to the “Map” page (Fig. 41).

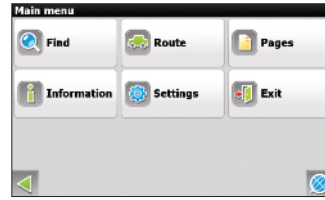


Fig. 41

7.1. Find

This menu item is used to find different objects on the map. A detailed information can be found in the chapter 8.6 “Search”.

7.2. Route

This menu item is used to manage active route and waypoints. Press it to enter the route management screen with a set of buttons which depends on active route presence and demo-route mode status.

If you press a “Route” menu item with an absent route on a map, a menu will appear with “Route properties” function available only (Fig. 42 (a)). However, you may import a route and work with it.

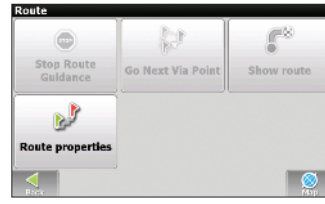


Fig. 42 (a)

If you press a “Route” menu item with a demo-route mode turned off, all the functions will be available in the opened window (Fig. 42 (b)).

If you press a “Route” menu item with a demo-route mode turned off, the “Demo route” button will disappear, while the “Stop Route Guidance” will change to the “Stop demo” – (Fig. 42 (c)).

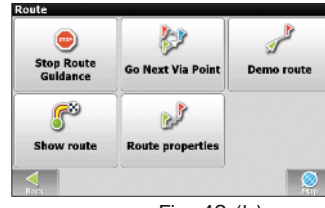


Fig. 42 (b)

7.2.1. Stop Route Guidance

Press this button to stop the active route guidance. Also it will disappear from the map;

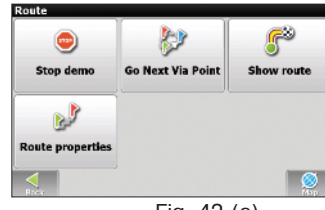


Fig. 42 (c)

7.2.2. Go Next Via Point

Press this button to navigate to the next point if you missed a current point or decided not to visit it. This menu item us available with active route only.

7.2.3. Demo route

This menu item is available with a GPS-connection turned off only. Press it to activate the demo mode. It may help you to reveal all the unfavourable and dangerous route sections and to change the route if needed.

7.2.4. Show route

Press this button to show a full route, including a start, a finish and all middle points. The scale will be changed, so you can see the full route.

7.2.5. Route properties

All the waypoints in an active route list with turns and intermediate waypoints filters are showed in this menu. Also, it is possible to import, export or reroute using this menu.

Note: for more information on track import and working with route please refer to the “Functionality” section of this manual.

7.3. Pages

Use a “Pages” menu item to select one of five main system pages (Fig. 43):

Fig. 43

You can find a detailed information on each of this pages in the “System pages” section.

Note: in the page display mode the “Map” page is showed first, then the “Route”, “Dushboard” and “Satellites” pages are displayed. Press the green arrow ( ) at the bottom of the screen see previous page in the order. So, if you the press green arrow on the “Satellites” page you will move to the “Dashboard” page etc.

7.4. Information

Use the “Information” page to see a various system data. This menu consists of 3 items (Fig. 44):

Fig. 44

- “About” — this page holds information on the software version, license key, device serial number, technical support telephone number and “Navitel” company web site (Fig. 45 (a)).
- “About Map” — this page shows path to file currently being used, map name and its creation data, and copyrights (Fig. 45 (b)).
- “Copyright” — list of rightholders of all the terms used (Fig. 45 (c)).
- “Map activation” — you can activate any additional map using this page (Fig. 45 (d));

Fig. 45 (a)

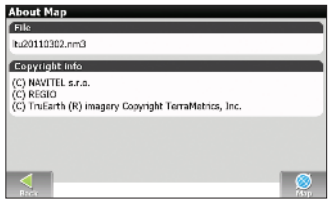


Fig. 45 (b)

Fig. 45 (c)

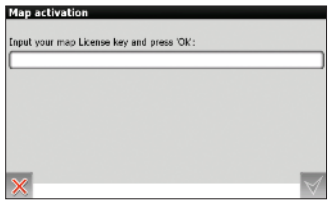


Fig. 45 (d)

7.5. Settings

A “Settings” menu (Fig. 46) contains some functions and program main settings. Color and type of some icons may vary because of corresponded function status and current Skin-file. Also, icons color on the “Map” page depends on the interface settings.

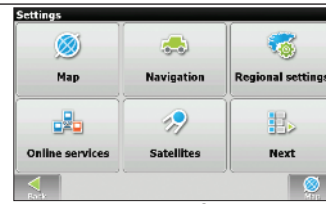


Fig. 46

7.5.1. Map

This menu (Fig. 47) contains various map view settings. Most of these settings control number and quality of objects on the map.

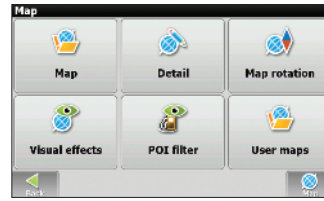


Fig. 47

7.5.1.1. Map

This menu (Fig. 48) shows all the installed official maps by Navitel. You can use the button at the bottom of the screen to activate a context menu (Fig. 49):

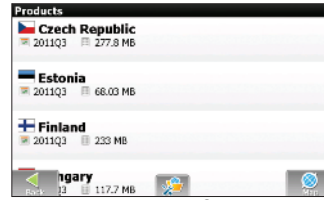


Fig. 48

- **Check for updates**

If you select this item, the software will automatically connect to the server with updates (Internet connection is required) and check if your installed maps are up-to-date. If any of your maps are outdated, Navitel Navigator will offer you to update them in automatic mode (Fig. 50).

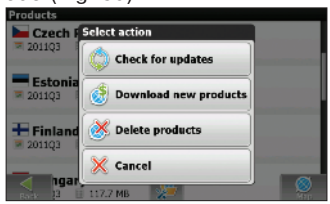


Fig. 49

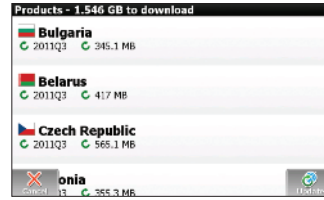


Fig. 50

Press the “Update” button at the right part of the screen and allow the download process to start. During the download process, Navitel Navigator will check your maps (Fig. 51), then download new maps (Fig. 52) and check them too.

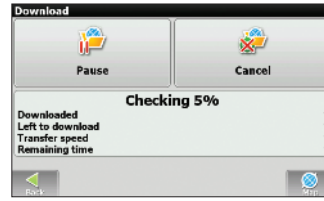


Fig. 51

Also, you can update maps in single mode: just press the name of the country to check for update.

Use the “Install” button to install the maps (Fig. 53).

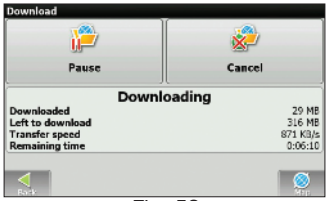


Fig. 52

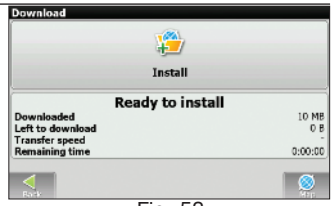


Fig. 53

- **Download new products**

If you have license for some maps, you can download it at www.navitel.su or using this menu. Select a country to download (Fig. 54), then wait for download (Fig.52) and for check (Fig. 52). After the download process finished, press the “Install” button (Fig. 53).

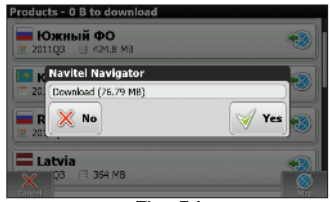


Fig. 54

- **Delete products**

You can delete unused maps. Select it from the list and press the “Yes” button (Fig. 55). You can download them again later if necessary.

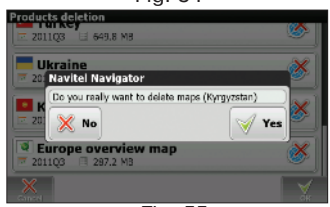


Fig. 55

7.5.1.2. Detail

The “Map detail” (Fig. 56) affects the display of details at various scales. Low details setting will prevent some details from displaying (Fig. 57) but it will boost the rendering. Otherwise you will get maximum detailed image (Fig. 58), but it will take system some more time to render it.

Press a left/right arrow or move the slider using stylus to set “Map detail”

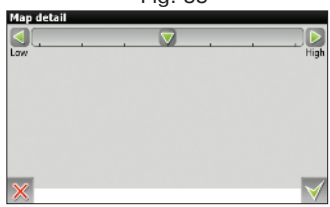


Fig. 56

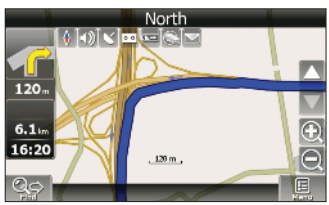


Fig. 57

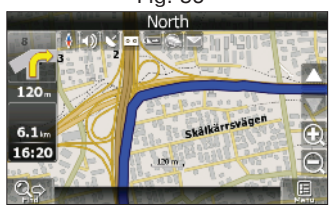


Fig. 58

7.5.1.3. Map rotation

"Map rotation" is a map direction setting (Fig. 59). Press the green arrow in the right side of the window to choose from tne "North Up" and "Route Up". You can also access this function by pressing a compass icon ( ). (Learn more at the chapter 6.1.5.1 "Map rotation").

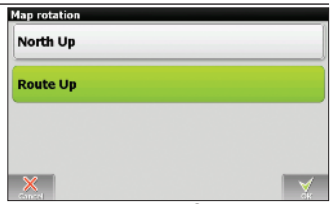


Fig. 59

7.5.1.4. Visual Effects

Visual effects (Fig. 60) may increase the image quality, but it will also increase a rendering time. The following visual effects are available:

- Highlight objects;
- Object border smoothing;
- Show 3D models;
- Smooth motion.

To turn on/off an effect, press on its name.

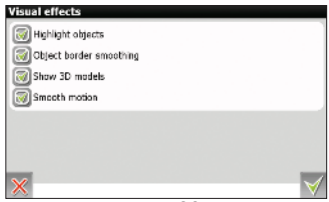


Fig. 60

7.5.1.5. POI filter

Infrastucture objects display settings (Fig. 61) are showed at this page.

POI are divided into different groups: "Auto", "Food", "Shopping", etc. By tapping a blue arrow at the left part of the field, you can open its subgroups (Fig. 62).

You can see a green check symbol at the left part of the field too, which shows if the display of its objects is turned on or off. If the symbol is green - the group is displayed, if it is partially green - some of its subgroups are turned on and some are off. If the check symbol is grey, the group and its subgroups are not displayed yet. By pressing this symbol you can change its state.

There is a settings button at the right part of the field. By pressing it you can open an additional settings menu (Fig. 63).

- "Turn off all" - turns off a display of all the elements of the group/subgroup.
- "Seen on scales" — minimum and maximum scale where POIs from this group/subgroup are displayed.

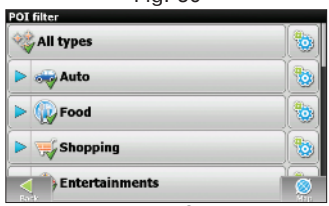


Fig. 61

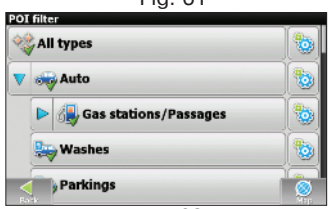


Fig. 62

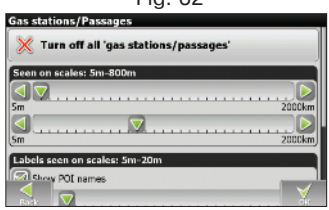


Fig. 63

• “Labels seen on scales” (Fig. 64) — if you check a “Show POI names” item, you can set a maximum scale of displaying POI name, not its icon.

• “Restore defaults” restores group/subgroup settings to defaults. If you press this button, a popup will appear. Press the “Yes” ( ) button to change settings or “No” ( ) to cancel.

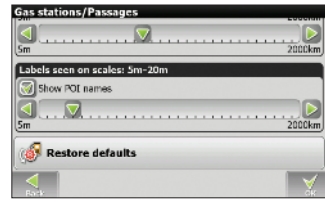


Fig. 64

Using the “All types” group you can set all the POI display settings. This filters works like a limiter: for example, you can turn of display of the names of all the POI, but if you want to turn them all on - you should check it in every group and subgroup.

7.5.1.6. Other maps

Atlas is a set of maps and one of the main elements of the system (Fig. 65). Press this menu item to open an atlas management window where you can edit current set of maps or create a new one. Also you can see its name, directory and number of maps in existing atlas.

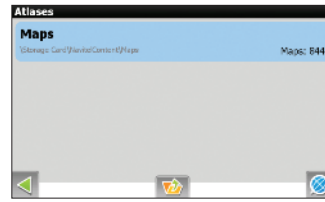


Fig. 65

To edit an atlas, press its name field and the following buttons will appear (Fig. 66):

• Select — if you have several Atlases, you can select one of them. Press this button to apply selected atlas for system usage.

• Reindex — after editing an atlas (adding/deleting map-files, for example) press this button to reindex it and apply changes.

• Delete — delete the selected atlas.

• Cancel — close menu.

Fig. 66

If an atlas is missing, you should add it. Please press the button in the bottom of the screen ( ) and a search menu will appear (Fig. 67). First, select a root folder on your device by pressing the green arrow on the top of the screen. Then lay a path to an atlas folder with set of maps you need: select a catalog and press “Enter” ( ). When you reach the desired folder, press its name field and select the “Create Atlas” ( ) item. Press an “Up” button ( ) to get back to previous catalog. Press the “Cancel” ( ) button to close this window.

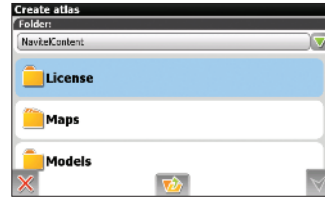


Fig. 67

When you press “Create Atlas” ( ), the indexation process will begin. Its duration depends on the number of map files in the catalog. When the process is finished, you will see a window (Fig. 68) with information on indexation time, number of maps and directory path. Press the “Ok” ( ) tton to close the window. A new atlas will appear in the atlas management menu (Fig. 65).

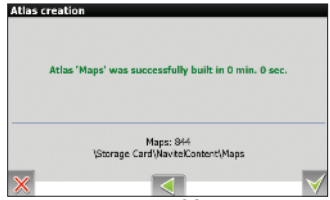


Fig. 68

7.5.2. Navigation

The navigation system and a route settings (Fig. 69).

7.5.2.1. Vehicle

The function allows you to optimize a system according to vehicle being used for the navigation. Press the green arrow in the right side of the screen to choose an option (Fig. 70):

Pedestrian; Bicycle; Car/Motorcycle; Taxi; Bus; Emergency; Delivery; Truck.

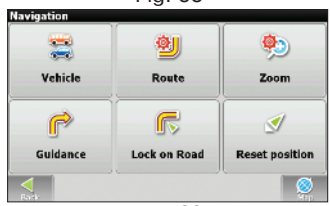


Fig. 69

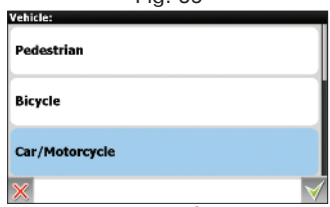


Fig. 70

7.5.2.2. Route

A route settings: using the two following pages you can set your route options:

Page 1 (Fig. 71):

The “Route style” is used to select a routing method: “Use routing” or “Use direct routes”.

“Calculation style” — guided by this setting, the system calculates a “Quick” or a “Short” route.

Fig. 71

Page 2 (Fig. 72)

“Try to avoid” – check the items you want to avoid during a route calculation: “U-turns”, “Toll roads”, “Unpaved roads”.

“Off-route recalculation” – system reaction on leaving the route. Press the green arrow to choose from: “Automatic” or “Off”.

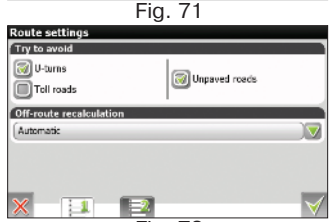


Fig. 72

7.5.2.3. Zoom settings

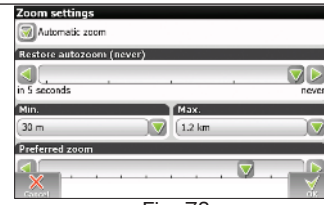


Fig. 73

The system defines the best map scale while navigating a route depending on the environment and a speed (Fig. 73). Press the item to turn it On/Off.

“Automatic zoom” — enables the automatic zoom.

“Smooth zoom” — enables the smooth zoom.

“Restore autozoom” – time setting before the Automatic zoom is activated if you have changed it manually. The options available: 5 s, 10 s, 15 s, 20 s, “Never”.

“Min./Max.” – the automatic zoom functionality limits.

“Preferred zoom” – when the automatic zoom is turned on, you can set a preferred zoom, from a high detailed (Max.) to a less detailed (Min).

7.5.2.4. Guidance

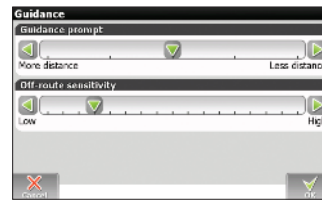


Fig. 74

The “Guidance prompt” sets a time for system to inform you about the incoming maneuver (Fig. 74). You can set slider to 1 of 5 positions from the “More distance” to the “Less distance”.

“Off route sensevity” — you can set how to calculate a new route when you leave the old one: immediately (“High” mode) or to try to return to the old route.

7.5.2.5. Lock on road

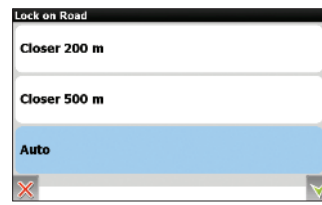


Fig. 75

This function (Fig. 75) braces the active route to the road, helping you to keep closer to the them if a GPS-connection became week or if you have decided to bypass an obstacle.

Options: “Don’t lock” (the function is off); Closer 20 m; Closer 50 m; Closer 100 m; Closer 200 m; Closer 500 m; Auto.

7.5.2.6. Reset position

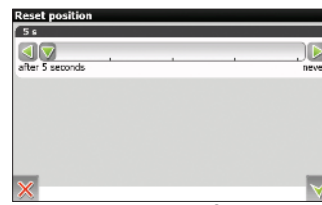


Fig. 76

If you have moved the map while navigating a route, this function moves it back to your current location in the set amount of seconds. You can choose from 5 s, 10 s, 15 s, 20 s, and “never” (function off) (Fig. 76).

7.5.3. Regional settings

On this page you can choose a language, a voice package, a keyboard layout and a set of units (Fig. 77).

Fig. 77

7.5.3.1 Language

Press the green arrow on the right side of the field and select a language from the list. Russian, English, Spanish, Turkish and other languages are supported.

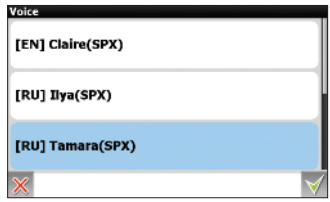


Fig. 78

7.5.3.2 Voice

This menu contains a set of the voice prompts used to inform you about different events. You can change the set by pressing this button, then select another set from list (Fig. 78). To download an optional voice sets, please visit http://www.navitel.su/download. Unpack the archive to the \NavitelContend\Voice\ catalog in your SD card. The folder name must be like “0409” for English, or “0419” for Russian.

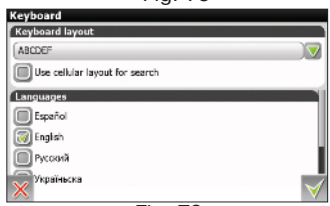


Fig. 79

7.5.3.3 Keyboard

Keyboard layout and supported language options.

The “**Keyboard layout**” sets the type of a keyboard layout appearing on the screen (Fig. 79) which appears after pressing a text window or when you are searching for a specific address or an object.

Fig. 80

Available keyboard layout options:

· **QWERTY 1** — is a standard PC keyboard layout. The first top left letters are qwerty (Fig. 80);

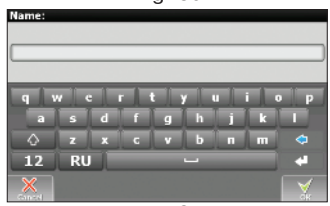


Fig. 81

· **QWERTY 2** — this keybord layout is similar to the previous option, but additional symbols are displayed at the bottom of the screen (Fig. 81);

· **ABCDEF** — Letters are settled in the alphabetical order (Fig. 82);

· **Use celluar layout for search** - Keyboard reflects mobile phone layout: there are several letters that are binded to a one figure (Fig. 83).

"**Languages**" – there is a button on a keyboard to change the language. Check languages you want to include in this chain.

Fig. 82

Fig. 83

7.5.3.4 "Units"

The page (Fig. 84) is used to select units of measurement of coordinates, azimuth, length/speed, height/ depth, area and an address format. Press the green arrow in the desired field to reveal the list of probable variants.

· **"Coordinates"**,
Latitude/Longitude:
ddd.ddddd°;
ddd°mm.mmm';
ddd°mm'ss.s".

· **"Postal address"**:
Number, street;
Street, number.

· **"Elevation/altitude, depth"**:
Meters;
Feet.

· **"Azumuth"**:
Degrees;
Cardinal direction.

· **"Lenght, speed"**:
Metric (meters, km, km/h);
Nautical (feet, n.miles, knots);
Statute (feet, miles, mph).

· **"Area"**:
Square Meters, Square Kilometers;
Square Feet, Sq. Miles;
Hectares;
Acres.

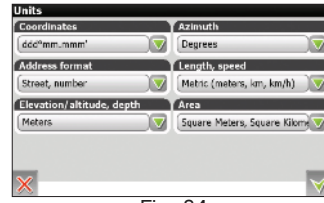


Fig. 84

7.5.4. Online services

This page (Fig. 85) allows a user to set the Internet-services and a Navitel.SMS.

Fig. 85

7.5.4.1. Application Update

You can set an automatical software update at this page (Fig. 86).

· **Enable auto updates**;

· **Download through GPRS** - you can set an update permissions to use a GPRS/3G Internet connection;

· **Application update in roaming** - roaming update settings;

· **Check updates** - sets the frequency of updates;

· **Check now** - check for updates immidiately.

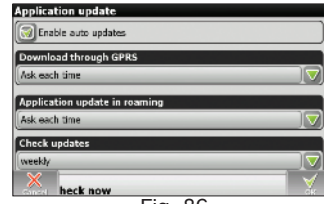


Fig. 86

If a Navitel Navigator finds a new version, it will ask you to download and install it (Fig. 87). This process is similar to a map update process (chapter 7.5.1.1).

7.5.4.2. Traffic jams

Page 1 (Fig. 88):
"Use for automatic routing" – activate the function for system to take into account a traffic jams data during the route calculation.

If the "Show on map" function is activated, traffic jams will be displayed on a map with lines of different colors.

Use the "Update data" field to configure an automatic data update function. Press the green arrow to set the time for automatic data update.

You can use the "Update" button any time to update the traffic jams data.

Page 2 (Fig. 89):
"Connection with Internet" – Internet connection is required to update the traffic jams data. Use this item to control the system access to the Internet.

"Traffic jams update in roaming" allows you to control the internet connection if you are in roaming.

7.5.4.3. Navitel.Events

At this page you can turn on or off the Navitel.Events service. Learn more at the chapter 8.10 Navitel.Events.

7.5.4.4. Data Exchange (Fig. 90)

"Allow Navitel.SMS receipt" – Check this item if you want to receive SMS from other users;

"Show a pop-up window automatically" – if the function is active, a window appears on the screen informing you about a received SMS. Otherwise, press the symbol at top of the "Map" page;

7.5.4.5. Weather

Using this page (Fig. 91) you can set the weather forecast service:
"Automatic" — sets the automatic update mode;
"Manual" — sets the manual update mode.

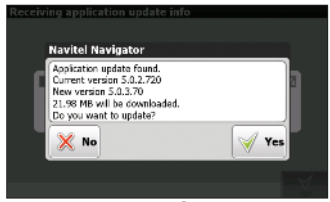


Fig. 87

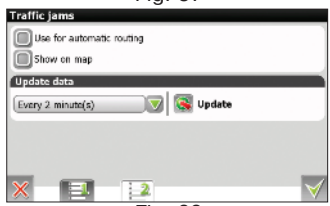


Fig. 88

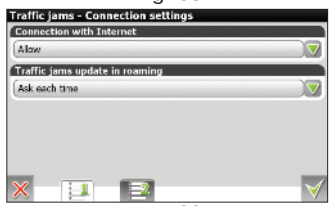


Fig. 89

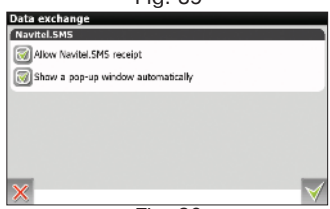


Fig. 90

Fig. 91

7.5.4.6. Online POI info

Some POI have a dynamic information: gas prices, cinema showtimes, etc (Fig. 92). If the function is turned on, you can see this data. Full partner list you can learn at the www.navitel.su

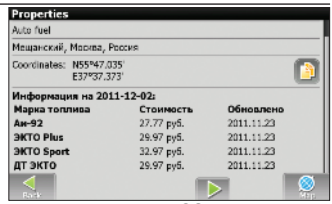


Fig. 92

7.5.5. Satellites

This page containts a GPS-connection settings (Fig. 93).
“Autodetect settings” – this function allows the system to detect GPS-settings automatically according to your device and its adjustments.

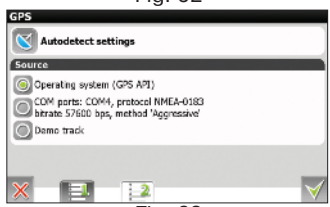
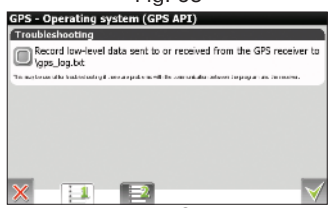


Fig. 93

“Source” - select one of the options below:

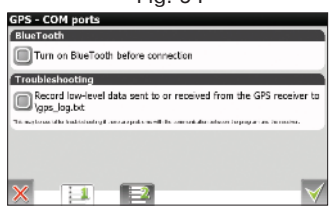
· Option 1: “Operating system” (Fig. 94)

“Troubleshooting” — the log-file record function is used for troubleshooting. Activate this function in case of inappropriate functionality of a GPS-receiver or by the request of our technical support only.


GPS - Operating system (GPS API)
Troubleshooting
Record low-level data sent to or received from the GPS receiver to \gps_log.txt
Fig. 94

· Option 2: “COM-ports” (Fig. 95)

“BlueTooth” activates a Bluetooth before the connection is established;
“Troubleshooting” — is similar to option 1.
Also, if “COM-ports” source is selected, you will see COM-ports, protocol, data rate and data read method on the page 1.


GPS - COM ports
BlueTooth
Turn on BlueTooth before connection
Troubleshooting
Record low-level data sent to or received from the GPS receiver to \gps_log.txt
Fig. 95

· Option 3: “Demo track” (Fig. 96)

“Track file” – select a demo track. Press the field to open file selection menu. Folder selection window is in the top left corner and format selection window is in the top right corner. Use it to apply a filter on displaying files: “All formats” (no filter), *.gpx, *.plt, *.gdb, *.mps. Then, select a file by pressing folders. Press the “Back” button to move one step backwards.
“Play rate” — 1x (normal speed), 2x, 4x, 8x.
“Start at” — Demo track replay starting point. Measured in percent (100% = full track’s length). You can select one of the following values: 0%, 10%, 20%, ..., 100%.
“Loop” — Activate this function to auto repeat playing demo track at the end of each circle.

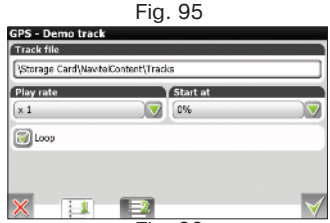


Fig. 96

7.5.6. Interface settings

Interface settings (Fig. 97) allow you to use the “Map” and other pages and all their elements at maximum efficiency.

Fig. 97

7.5.6.1. Skin

In this menu (Fig. 98) you can set the interface color scheme. Press the green arrow in the right side of the field to select a scheme from the list. To download optional color schemes, please visit http://www.navitel.su/download/. Unpack the archive to the \NavitelContent\Skins\ folder on your SD card.

Fig. 98

The “Skin type” option allows you to switch between the day and night view modes. Use the night view mode when it is dark. It will protect your eyes from tiredness and make the device more comfortable to maintain. You can set this option to one of three positions.

- Day view mode;
- Night view mode;
- Automatic mode allows the device to switch between day and night view modes automatically subject to sunrise and sunset time in your region and when entering a tunnel.

This function is duplicated in “Compas” menu.

7.5.6.2. Interface

The “Map” page control panel settings (Fig. 99).

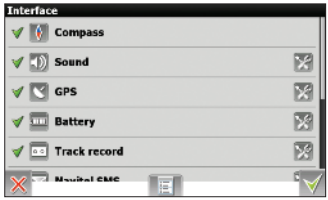


Fig. 99

Interface settings allow you to use the “Map” page and all its elements at maximum efficiency. You can edit every element displaying under the different state of the corresponded function.

There is a symbolat the left of each element, and if can take different color depending on the element display settings. Green color means button will display under each state of correspond function. If the color is grey – the button display is disabled. Half colored symbol means that under the certain circumstances of the button it won’t be displayed. Press the symbol to On/Off button display on “Map” page fully.

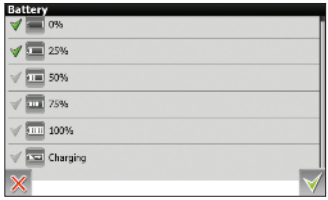


Fig. 100

Press the settings button in the right side of each field to open the display settings under the corresponded function state menu (Fig. 100). Press the symbol to turn On/Off the button display under current state.

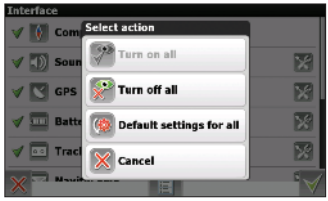


Fig. 101

At the bottom of the interface settings menu there is a ( ) button, that allows you to edit display of all the buttons (Fig. 101):

- “Turn on all” — turns on all the button display on the “Map” page;
- “Turn off all” — turns off all the button display on the “Map” page;
- “Default settings” — returns to a factory default set of buttons displaying on the “Map” page. System will ask you a confirmation;
- “Cancel” — closes the menu.

7.5.6.3. Hide elements

On this page (Fig. 102) you can set a hiding of some elements on the map page. All of them will appear again after your activity, for example, after the screen tap.

“Hide buttons” — sets hiding time of the “Cursor” and the “Save WP” buttons.

“Hide” — sets hiding time of the “Menu” , the “Find” button, the “Compas” , “GPS” elements, etc.

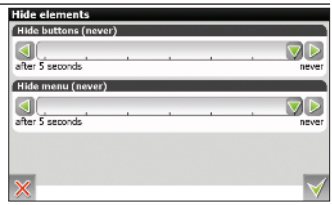


Fig. 102

7.5.6.4. Inertial list scrolling

If the function is active (Fig. 103) you will have an opportunity to create an impulse by your finger or stylus by rapidly moving it up/down and release after it. List will continue to scroll what way slowly decelerating.

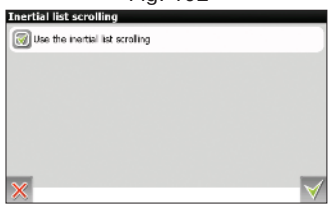


Fig. 103

7.5.6.5. Exit confirmation

Program will close instantly after pressing the “Exit” button if this function is disabled. Otherwise, the exit menu will appear on the screen (Fig. 104).

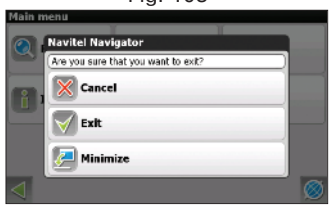


Fig. 104

7.5.7. Device

Overall functional device settings (Fig. 105)

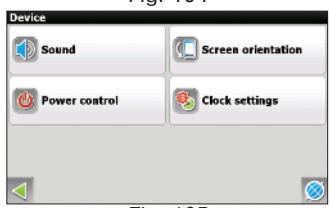


Fig. 105

7.5.7.1. Sound

On this page (Fig. 106) you can set the software sound effects.

“Turn off sound” – the function allows you to turn off all the sound effects and a voice guidance completely;

“Keep volume” – Navitel Navigator volume will be equal to the operating system settings if the function is active.

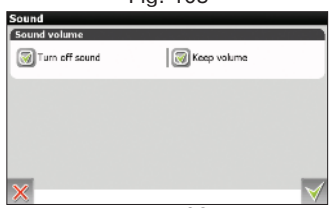


Fig. 106

7.5.7.2. Screen orientation

This function rotates image on a certain angle. Orientations available: “Keep system”, “Portrait”, “Portrait (rotate)”, “Landscape (left)”, “Landscape (right)”.

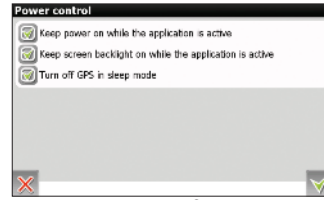
7.5.7.3. Power control

This is the power management page (Fig. 107).

“Keep power on while the application is active” – your device will not turn off or go to a sleep mode automatically if the Navitel Navigator is running;

“Keep screen backlight on while the application is active” – for the purpose of saving battery life, the screen backlight turns off after the definite time if the device is idle. Activate the function to backlight on;

“Turn off GPS in sleep mode” – activate this function for the purpose of saving the battery. GPS-receiver will be turned off in a sleep mode;


Power control
Keep power on while the application is active
Keep screen backlight on while the application is active
Turn off GPS in sleep mode
Fig. 107

7.5.7.4. Clock settings

Clock setting page (Fig. 108).

“Correct system clock using GPS time” sets the automatic clock adjustment using a GPS time function;

“Update time zone automatically” – activate this function if you move from one time zone to other frequently. System will make corresponded changes automatically.

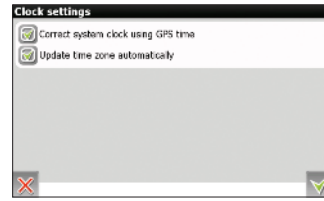


Fig. 108

7.5.7.5. Folders’ settings

You can use this menu item (Fig. 109) to set the folder where a map files are stored. The \NavitelContent\Maps\folder is used by default.

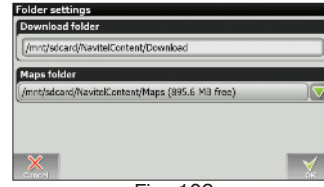


Fig. 109

7.5.8. Alerts

Voice and visual alert settings (Fig. 110).

“Turn off sound alert” – activate this function to turn off a sound alert that appears when you approach railroad crossings, speed cameras, sleeping policemens, etc.

You can select the alerting method: “Voice alert” or “Signal alert”.

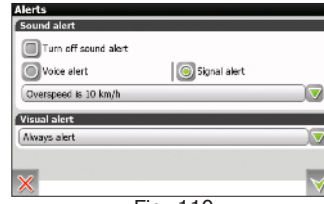


Fig. 110

Also it is possible to set conditions of activating alert: “Do not alert”, “Always alert”, “Overspeed is 0 km/h, 10 km/h, 20 km/h, ... , 100 km/h).

7.5.9. Track's setting

You can save your track in different formats to view it afterwards. (Fig. 111).

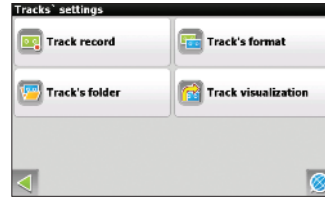


Fig. 111

7.5.9.1. Track record

Activate this function if you want to record your track.

7.5.9.2. Track's format

Select a track record format (Fig. 112). It can be saved in *.mps or *.gpx file formats.

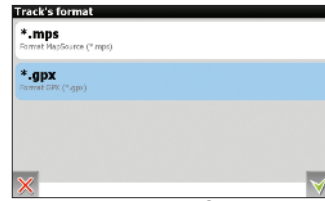


Fig. 112

7.5.9.3. Track's folder

Select a folder to write a track. (Fig. 113).

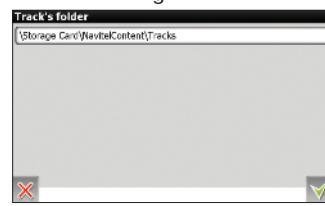


Fig. 113

7.5.9.4. Track visualization

If you check this item, the last 10 000 points of your track will be shown on the map via violet line.

7.5.10. Profiles

With this menu item (Fig. 114) you can create different settings profiles and change one to other quickly. A profile saves all the user's settings.

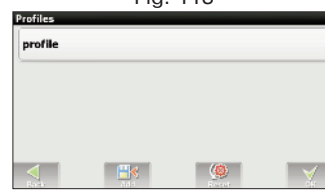


Fig. 114

"**Reset**" - the function is used to reset all the system settings to defaults. This can be useful if you have changed a lot of settings and want to return to the default settings in one click. After the function is enables, the software will relaunch automatically.

"**Add**" saves a current settings profile.

If you press the profile's name, some other options will appear:

"**Load**" applies the profile to the current system's state;

"**Delete**" deletes the selected profile;

"**Rename**" - if you want to change a profile name, use this option;

"**Save**" saves the current system's state to the selected profile.

8. Functionality

8.1. Routes

A route creation function was included in the software functionality to plan the forthcoming way and to monitor the accuracy following it. There are several ways to create a route: using the “search” function, from your current location to any point, and from a point A to point B.

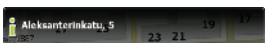
Buttons:

“Go To” — Press this button to lay a route from the first point of the existing route or the start point to the selected point, deleting all the waypoints between;

“Start” — Add a point as a start point. You should turn off your GPS reciever.

“Drive before” -Add a point between the two points of the existing route. The last added point (if several were added), becomes the second priority point in the current route;

“Add to route” — Point is added to the end of a route and continues it;



“Info” — Highlighted point properties. Tap to see more.

8.1.1. Autorouting

In order to create a route automatically, from the current position to the destination point, tap on the place on the map where the final point is, tap on the “Cursor” button and in the context menu choose "Go to" (Fig. 115). The calculated route will be shown on the map in blue color with highly visible dark border (Fig. 116). Please, note that in case of non-routable maps, the route will represent a straight green line from your position to the destination point, ignoring the existing buildings, roads, etc.

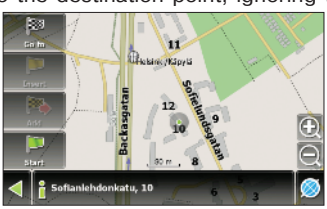


Fig. 115

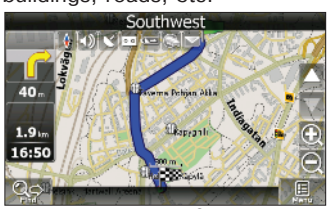


Fig. 116

8.1.2. Autorouting using search

Find an object of interest using a “Search” and press on its name, then select a “Go To” item from the menu. Apart from this item there are also an “Insert” item wich adds a point between the two points of an existing route, and an “Add” item wich adds a point to the end of the route and continues it. Both items are available with an existing route only.

8.1.3. Manual route creation

The difference of this route creation method from the previous two ones is what you can set a start point and a destination point.

To create a route, press on the selected place on the map, press the “Cursor” (Fig. 117) button and a “Start” button after the menu appears (Fig. 118). Then find the destination point and press a “Cursor” — “Go To” (Fig. 119). If you are using maps that support autorouting, route will be created referring to this data and will be the shortest or the quickest. Otherwise the waypoints will be connected with a strait green line.

Please note! If a GPS-receiver is active, you cannot set the start point!

Fig. 117

Fig. 118

Fig. 119

8.1.4. Route editing

Press the maneuver window to open a route editing menu. The following functions are available:

“Stop Route Guidance” — delete a route from the map and stop following it.

“Demo route” — This function available only if the GPS receiver is turned off. Use it to observe the forthcoming path, U-turns and some general route information. Such full demonstration allows you to reveal all the dangerous and unfavourable sections and correct the route if it is needed.

“Go next via point” — press this button to go to the next waypoint if you missed the current one or decided not to visit it.

“Show route” — Press this to show the full route, including the start, the finish and all the middle points. The scale will be changed so you can see the route.

“Maneuvers” — Fast access to the “Route” page.

“Settings” — Fast access to the “Menu” —> “Settings” —> “Navigation” page.

You can also edit a route using waypoints. Press any place on map and then press a “Cursor” while navigating a route to create a waypoint. The following buttons will appear at the bottom of the page: “Go To”, “Insert”, “Add”, “Start”, “Info”.

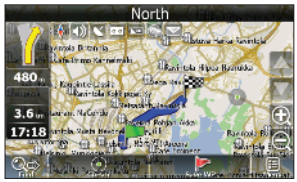


Fig. 120

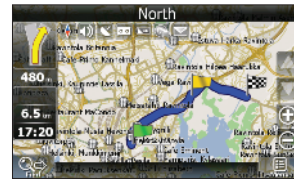


Fig. 121

8.1.5. Edit route waypoints

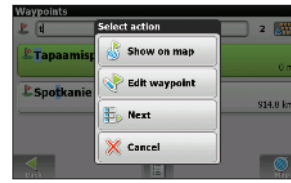


Fig. 122

You can edit different waypoints using the “Search” — “Waypoints” item. After pressing an any waypoint a menu will appear with a set of possible actions (Fig. 122).

“**Show on map**” show the current waypoint and its properties on the map (Fig. 120):

“**Go To**” creates a route to the current waypoint

“**Include**” reroutes including the current waypoint;

“**Add**” adds the current waypoint to the end of the existing route (Fig. 121);

“**Edit waypoint**” — the main waypoint’s properties edit menu (coordinates, name, etc.);

“**Delete waypoint**” deletes the waypoint even if a route is created or not;

“**Send Navitel.SMS**” — Send an SMS with the waypoint coordinates;

“**Cancel**” returns to the waypoint list;

Use the “**Back**” and the “**Next**” buttons to switch pages with possible actions.

Fig. 123

8.1.6. Route properties

The Software allows a basic route edit functions. Enter the “Route” —> “Route properties” item (Fig. 123).

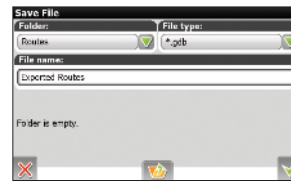


Fig. 124

This page reflects the route points with the different filters. The general route length is indicated at the top of the page. Press the context menu button at the bottom of the page to view the menu for rerouting, importing, and exporting the route. "Reroute" and "Export" (Fig. 124) options are availiable only during automatic route navigation.

8.2. Track

It is possible to record the actual track passed during your moving. The “Track Record” function can be set in “Menu” — “Settings” — “Track’s settings” — “Track Record”, or by pressing the corresponded icon on “Map” page if it was enabled in the “Interface” settings. The “Track Record” function is available with GPS-receiver turned on and a connection established only.

A track is displayed on the “Map” page with purple line, which repeats your trajectory, if the “Show latest 10000 track points” function is active. A track is automatically recordsed in the MapSource (.MPS) file format. However you can change it to the .GPX in “Menu” — “Settings” — “Track’s settings” — “Track fromat”. Track files are saved in the “\NavitelContent\Tracks\” folder in your device’s flash card memory. Additional service files are stored in the “My documents/GPS Tracks and Way points” folder in the device main memory.

A track is displayed on the “Map” page limited with 10000 points. A track record is limited only with an available memory. A recorded track in the sequel can be imported as a route. Besides tracks created by the system, tracks of other types can be imported – OziExplorer Tracks or a Garmin GPS Database. To import a track go to “Route” — “Route Properties” menu item, then press the context menu icon and select an “Import Track” item. A file list will appear on the screen. Go to the “\NavitelContent\Tracks\” folder (catalog name can differ depending on device model), select the track you want to import and press the “Ok” button. If the track is separated into segments, select a segment and press “Ok”.

You can also replay tracks on map. Go to “Settings” — “Satellites” and select a “Demo Track” as a source. Select the file on the next page and start a demo track.

Fig. 125

8.3. Waypoints

Waypoints allow you to mark places with specified coordinates. This may help you to improve your orientation in the city and to check places of interest. Waypoints can be created manually. They are named automatically in a chain of a three-digit format.

To create a waypoint, press any place on a map. A big grey circle will appear in that place. Then press “Save WP” button in the bottom of the page (Fig. 125).

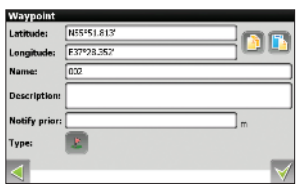


Fig. 126

After this operation a waypoint edit menu will appear on the screen (Fig. 126). Use this menu to edit a name, description, coordinates type, preference display method of the waypoint, to paste coordinates from the clipboard and sat a distance to the current point for notifications.

The waypoints types are divided into the several groups (for example: Outdoors, Business, Civil etc.) to ease the search of the specific waypoint. In order to select the waypoint type, press the “Type” icon and select a type.

A full waypoints list you can learn in the “Search” — “Waypoints” menu. Using this page you can make some general operations with waypoints: add a waypoint, delete all, export or import a waypoint by pressing button at the bottom of the page.

To export a waypoint, enter the “Waypoints” menu then press context menu button at the bottom of the page and select the “Export” (Fig. 127) item. A list of files will appear. Select the catalog and press the “Ok” button to export all waypoints to it. Make the similar actions to import waypoints. After the import process is finished, a window will appear on screen and inform you about the amount of imported waypoints.

Fig. 127

It is possible to manage each point individually by pressing its name in the list (Fig. 128). More information on this menu you can learn in the “Route” section. It is also possible to edit a waypoint right on the map. Find it visually and press on it (Fig. 129). To edit the waypoint press the “Cursor” — “Info” button. You can delete a waypoint by pressing “Remove WP” button (Fig. 130).

Fig. 128

Fig. 129

Fig. 130

8.4. Traffic Jams

Attention! The function is available with a GPRS-module connected only. Please, refer to your supplier for more information.

Using the “Navitel.Traffic Jams” service, your device will be able to show you an information on traffic jams in all the territories covered by official maps.

To activate the service, go to “Settings” — “Online Services” — “Traffic Jams” and turn on the service. Learn more at the chapter “Main Menu” — “Settings” — “Online Services”.

The corresponding to this service icon is displayed at the top of the screen. It can take one of three colors: green (information is available and up to date), yellow (information is available, but wasn’t refreshed in time), and red (service is unavailable, i.e. no connection). The icon will take a grey color if the “Use for automatic routing” and the “Show on map” items are unchecked in settings.

Note: Interface settings are also affect on the icon display.

Note: GPRS-traffic is paid individually in compliance with a carrier charge rate.

Traffic jams are displayed with polygons of different colors wich depend on the traffic rate. The highways and roads are displayed with the following colors:

- Red — a traffic jam;
- Pink — a movement is complicated;
- Yellov — a movement is a bit complicated;
- Green — a favourable traffic.

The status depends on overall segment load and roads adjoined, traffic lights, road works, traffic accidents, emergency line availability and other factors which can influence on traffic intensity. With the “Use for automatic routing” function activated, traffic jams will be taken into account when laying a route. Such route may be longer, but it will pass you through the less loaded roads (guided by the Navitel system information). An optimal route takes into an account the maximum speed that is allowed on the different road segments and your route settings – the shortest or the fastest one.

8.5. Speed Cameras

The speed camera alert function is supported by Navitel Navigator since the 3.2.1.7443 version. Please visit http://www.navitel.su/download/ and enter your license key to download this update. For further information on updating program, please refer to “Software and maps updating” section of this manual.

A device alerts a driver with a sound signal and shows maximum speed that allowed at this road section. Near the speed camera icon you can see the arrows which will show you the speed camera direction. When you enter a speed camera range (1000 m) – the arrow becomes red.

Speed cameras information editing:

1. Open the SpeedCam.txt file in text editor;

Field name	Description
IDX	Serial number
X	Horizontal/Longitude (E/W) coordinate
Y	Vertical/Latitude (N/S) coordinate
TYPE	Camera type: 1-static camera; 2-traffic lights camera; 3-red lights crossing camera; 4-speed camera; 5-mobile camera (ambush); 101-speed limit; 102-speed bump; 103-poor road; 104-dangerous corner; 105-dangerous crossroads; 106-other dangers.
SPEED	Speed limit
DIRTYPE	Speed camera direction: 0- all directions (360˚); 1- define direction (see Direction field); 2- two directions (forward/backward)
DIRECTION	Viewing angle (between 0˚ and 359˚, 0˚-North, 90˚—East, 180˚—South, 270˚-West)

2. Fields description:

Field names can consist of capital or small letters. The last two fields can skipped – in that case camera will be considered as the “All directions” type.

Changes should look like this example:

IDX, X, Y, TYPE, SPEED, DIRTYPE, DIRECTION
1,18.9429837,47.4521967,1,100,2,90

Please note, that the coordinate format in file is Latitude/Longitude ddd.ddddd°, but it can be changed in “Menu” — “Settings” — “Regional settings” — “Units”.

Speed cameras information removal

1. Delete the SpeedCam.txt file from the main program catalog;
2. Run the program and make sure that the speed cameras information disappeared. Exampre: N55°52,866' E37°26,728'.

8.6. Search

Navitel Navigator is able to find objects of interest under different conditions (Fig. 131). Press the “Search” button on map page. The object you have found can be shown on the map or added to the current route using the different methods. Use the keyboard to set the search conditions. You can hide the keyboard by pressing the button in the upper right corner of the screen.

When you are using keyboard in some search methods, a list of appropriate names for already entered letters is displayed at the screen. If you made a mistake during the name input, press a Backspace. When a list fits to a single screen, the keyboard will be closed automatically. Then select an object from the list by pressing its name.

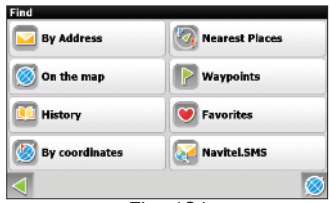


Fig. 131

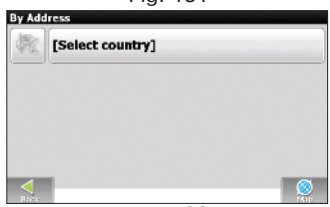


Fig. 132

8.6.1. By Address

Buildings and houses search if address is known.

- **“Country Search”**

  At the top of the search page there is a button (Fig. 132) “Select country”. If you want to select a country, press it. Select a coutnry from the appeared list using the keyboard (Fig. 133). If the keyboard is not required it can be hidden by pressing the button in the top right corner. When the list of the countries will fit to a single screen, the keyboard will close automatically. Press a country name to select it.

  After this you will see the “Select city”, “Select street” and “Select building” buttons (Fig. 134). If you want to change the country, press on it’s name.

Fig. 133

Fig. 134

- **“City Search” and “Street search”**
  City and street search tools are absolutly similar to the country search tool. Use the keyboard to enter the street name with an object of interest (Fig. 135). Streets with different names will disappear step-by-step while you entering letters. Also, the probable next letters will be highlighted on the keyboard. When the list of names will fit to a single screen, the keyboard will be closed automatically so you can select the street you’ve been searching for.

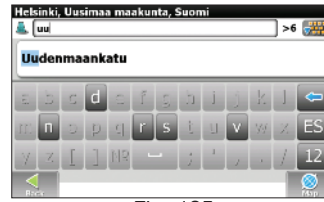


Fig. 135

- **“House search”**

  The “House search” is similar to the “Street search (Fig. 136)”. Enter the house number. If there is only one building with such number you will be moved to the next step. Press the green arrow at the bottom left corner to make a backward step.

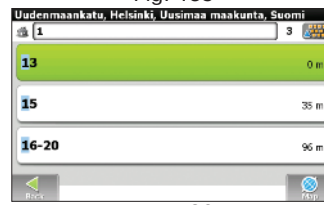


Fig. 136

- **”Result”**

  After the object is found you can look at it on map and lay a route to it. Also if there is already an active route, you can add the object to the route as a next point (“Insert”) or to the end of the route (“Add”) (Fig. 137).

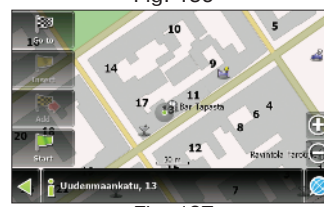


Fig. 137

8.6.2. Nearest places

Search for the nearest to the current point objects. This method is also consists of the several steps. Apart from the objects type there also is a nearest objects search history (Fig. 138).

- **“Selecting reference point”**

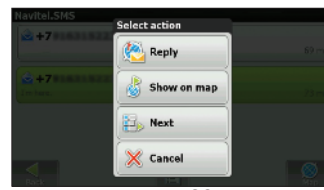


Fig. 138

A reference point is the principal in the “Nearest places” search. System will search for the nearest selected object types relative to the reference point. You should choose one of the following reference points: “Current location” – search for POI near the current location; “Postal address” – search for nearest places relative to the selected address; “By the route” - search for an object near the route line, “History” – one of the objects from overall search history can be selected as a reference point; “Finish” – items are available only with active route; “Cursor” – the distance is measured between search point and current position.

- **“Selecting search type”**

  There are several groups of objects (Fig. 139). You can start the search process by pressing a magnifying glass icon at the right part of the field (Fig. 140). You can open the subgroups by pressing a blue arrow at the left. If you want to search from all the types at the same time, select the “All” item.

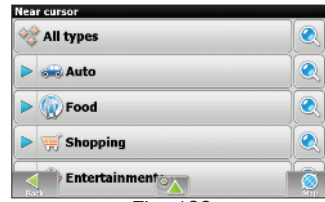


Fig. 139

- **“Search for specific object”**

  After you have selected a group of POI, page with all the needed types sorted by a distance to reference point will be opened. The closest objects will appear at the top of the page. Press the button at the bottom of the page to search for an object by name. Keep entering letters until the needed object’s name appears at the screen (Fig. 141).

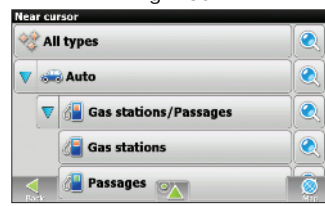


Fig. 140

- **“Result”**

  After the object was found you can learn it on the map, lay a route, and “Insert” or “Add” to the route if there is already an active route – similar to other search modes (Fig. 142).

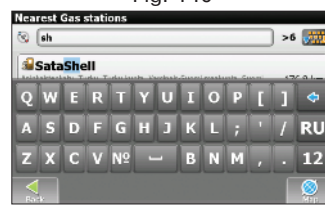


Fig. 141

Fig. 142

8.6.3. “Waypoints” search

The full waypoints list can be opened from the “Search” menu. Waypoints are searched by their names. Also, a distance is displayed in each waypoint field. The waypoint can be used to create a route or you can open it on the map. You can also edit a waypoint using this menu, delete a waypoint or even delete all waypoints, send a Navitel.SMS, import and export waypoints.

8.6.4. “History” search

List of all the objects that were ever been found using any methods of search. The last searched objects are at the top of this list. You can delete all the objects, lay a route to the selected object or look at it on map

8.6.5. “Favorites” search

This search method is aimed at finding the most frequent used objects. As opposed to the “History” search method, objects in this list are sorted by the frequency of using.

Fig. 143

8.6.6. Search “By coordinates”

Search for the specified object by coordinates (Fig. 143). Coordinates can be entered manually or you can paste them by pressing the button in the right side of the screen after copying them from the object’s properties on the “Map” page. Press the button at the bottom of the page to open the coordinates editing menu.

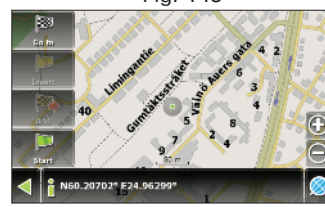


Fig. 144

“**Show on map**” shows waypoint with the specified coordinates on map with following options:

“Go To” creates route to the selected point (Fig. 144);

“**Insert**” adds the point to the route as a next point;

“**Add**” adds the point to the route as a final point;

“**Start**” adds the point to the route as a start point;

“**Add waypoint**” creates a waypoint with specified coordinates;

“**Cancel**” — exit from the menu;

Use “**Back**”/”**Next**” buttons to switch between the pages.

8.6.7. “Navitel.SMS” search

Attention! The function is available with GSM-module connected only. Please, refer to your supplier for more information.

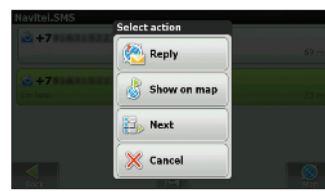


Fig. 145

The page contais the list of received Navitel.SMS. Messages are sorted by date – the last received message are at the top of the list. Press an item to open the message edit menu. Press the button at the bottom of the page to delete all messages or mark them all as read (Fig. 145).

8.6.8 Crossings search

Crossings search is similar to the address search (Learn more at the chapter 8.6.1. “Address search).

- **”Country and city search”**

  First of all, you should select a city and a country (Fig. 146) where you want to find a crossing. Similarly to the address search, press the “Select country” button and enter its name, then do the same for the “City search”.

- **”Street search”**

  After you selected a country and a city, “Street search” field will be available. Press it to search for one of a needed streets and enter its name (Fig. 147).

- **”Crossing search”**

  After you selected the first street, you can begin to search a crossing. This menu (Fig. 148) is similar to the street search, except for the number of the available streets. If you don’t know the exact name of it, you can minimize the keyboard by pressing the icon at the right top of the screen and scroll the list manually (Fig. 149)

- **”Result”**

  Afret the crossing search, Naitel Navigator will display the result on the map. You can create a route to it, and, similarly to other types of search, add it to the existing route or create a middle point (Fig. 150).

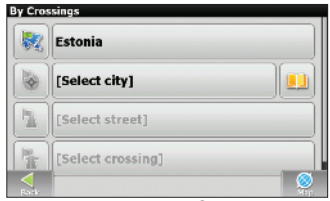


Fig. 146

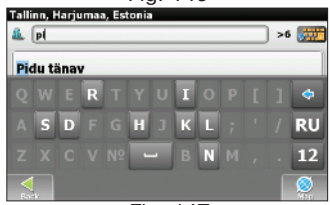


Fig. 147

Fig. 148

Fig. 149

Fig. 150

8.7. 3D-models

3D-models replicates real objects with high accuracy. To apply 3D models, please visit http://www.navitel.su/downloads/. Find the “3D models” in the list and download the “Models” archive file.

Fig. 151

Unpack the “Models” archive. Copy the “Models” folder to the \NavitelContent\ folder, then run the program and use the “By address” or “Nearest” search methods to find the objects of interest (Fig. 151).

8.8. Navitel. SMS

The “Navitel.SMS” option makes it possible to exchange with coordinates between users, to define the location of each other or to show an object by coordinates on the map (Fig. 152). Press this menu item to open a window with different fields. Here you can enter a recipient number, description and coordinates. Use the keyboard to enter data. There are 2 types of SMS-messages: sending coordinates to another user – “I am here” (Fig. 153), and request for another user coordinates – “Where are you?” (Fig. 154). Press the button at the bottom of the page to change the message mode.

Fig. 152

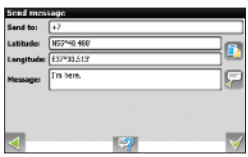


Fig. 153

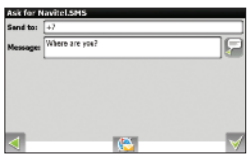


Fig. 154

8.9. Optional color schemes (Skins)

It is possible to change the interface color scheme by adding new skins. Please visit http://www.navitel.su/download/ and download the “Skins” archive file archive. Unpack the archive content to Navitel Navigator main catalog. Then press “Settings” — “Interface settings” — “Skins” and press the green arrow in the “Select skin” field. A list with possible optional skins will appear. Press a skin to apply it to the system interface.

8.10 Navitel.Events

Attention! The function is available with GPRS-module connected only. Please, refer to your supplier for more information.

Navitel.Events service is an addition to the Navitel.Traffic, using which you can determine the cause of traffic jam and select a better strategy to overcome it.

Events are displayed on a map as little icons and can have a “car crash”, “road works”, “speed camera” and “other warning” type (Fig. 155).

You can learn the information about any event and confirm or refute it. Check it on the map and press the “Info” button at the bottom of the screen (Fig. 156).

An event information page will appear (Fig. 157). You can see the timestamp and a text description. Also, you can press the “Confirm” or “Reject” button to confirm or reject an event.

To place a new event to the map, tap on the needed place and press a button with an exclamation mark “!”. If you tap the exclamation mark with no mark on the map, it will be placed near the scale line.

Attention! The Navitel.Event button is displayed at the left top of the screen in landscape mode only. It is displayed at the right middle of the screen in portrait mode.

Select a tipe of the event (Fig. 158). If a “car crash” is selected, you can quickly add info about lane using the hotkeys. Also, you can add a text description by tapping on the input field (Fig. 159).

Attention! Every user can place not more than 3 events in 10 minutes. Also, you can’t place an event closer than in 100 m to other. If you try to violate this rule, Navitel Navigator will show you an exception.

Attention! GPRS traffic is paid according to your carrier’s tariffs.

Fig. 155

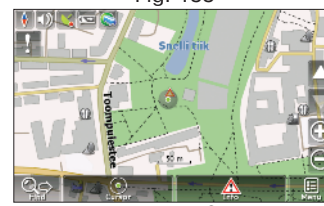


Fig. 156

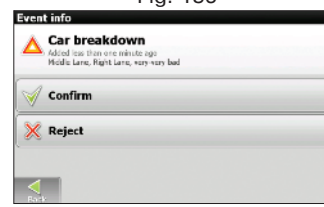


Fig. 157

Fig. 158

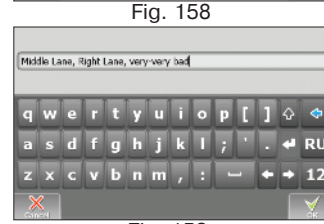


Fig. 159

9. Troubleshooting

9.1 Problems and solutions

Problem	Possible Solution
Program do not start	1. Reinstall the software. Please visit http://www.navitel.su/update/hidden-secure-page, enter your license key and download the update. Then install it following the instructions given on web site. 2. Please check the SD (micro SD) – card (if the software is stored on it). Backup all the data and format the card. 3. Please check the screen operability.
No connection with satellites	1. Please make sure the GPS-connection is On. The satellite icon should be green color with a dot. 2. Update your maps and software version. Please visit http://www.navitel.su/ update/hidden-secure-page, enter your license key and download correspond file archive. Follow the instructions given on the web site to install it. 3. Press “Menu” — “Pages” — “Satellites”. If you see yellow icon – the GPS settings are correct. The device should be left on open territory (or windowsill, balcony, dashboard), then without moving the device, wait until GPS-connection is enabled. 4. Make sure none of the other software is using the same COM-ports with GPS-receiver. 5. Reset the GPS settings to factory defaults. Please, refer to authorized service center. 6. If all steps above didn’t help, please refer to the authorized service center to check the GPS receiver operability.
Program is clossing due to system error	When laying a route: 1. Delete the DataRoute.bin file (main catalog or Navi folder if using PND). When recording a track: 1. Update your software version. Please visit http://www.navitel.su/update/hidden-secure-page, enter your license key and download correspond file archive. Follow the instructions given on the web site to install it. Other cases: 1. Update your software version. Please visit http://www.navitel.su/update/hidden-secure-page, enter your license key and download correspond file archive. Follow the instructions given on the web site to install it; 2. Please check the SD (micro SD) – card (if the software is stored on it). Backup all the data and format the card.

Problem	Possible Solution
Program runs in demo mode after the device maintenance, OS changed, firmware download.	1. Make sure the NaviTel Activation Key.txt file is in the main catalog; 2. Send the request to support@navitel.su with following content: Subject: Please reregister the software. Required content: 1. Software license key (22-digit number) or activation file; 2. Name and contact number. Photos of software license key envelope should be attached to the letter.
Can't activate the software:	1. Make sure the NaviTel Activation Key.txt file is in the main catalog; 2. In case of OEM-version, please make sure the software is being registered to the supplied device.
Different IDs are shown with each program initialization.	Make sure in MultiDID software absence. If not – delete it and send the reregistration request (learn the information above).
No sound	1. Please make sure /Wav/ folder is in the main catalog; 2. Press "Menu" — "Settings" — "Advanced" — "Other settings" — "System" — page □2 and make sure the "Turn off sound" option is disabled.
Problem with maps while software is working	1. Please make sure the set of maps is installed and the software version is updated ("Menu" — "Information"); 2. Please make sure the set of maps corresponds to software version. New set of maps can be downloaded from http://www.navitel.su/update/hidden-secure-page after entering your license key; 3. Please make sure the unofficial maps is missing in the "Atlas" folder. If you have such maps on your device, please move them to different folder and index it later if needed; 4. Send a letter to support@navitel.su with your problem or make a call: +7 (495) 23-23-137.
Navitel plug-in for today screen can't be turned off	1. Press "Start" — "Settings" — "Today"; 2. Select the "Elements" page and uncheck the "Navitel Today" item. To change the plug-in size, press "Settings" and select the needed format.

Attention! Never delete the software and maps activation files.

9.2. Running the program after a crash

If the software was stopped incorrectly (for example, a battery of your device was low and it turned off), during the next run you will see an after-crash information (Fig. 160).

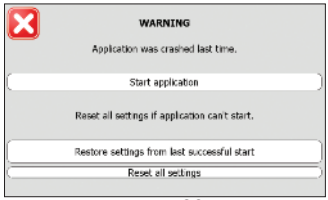

WARNING
Application was crashed last time.
Start application
Reset all settings if application can't start.
Restore settings from last successful start
Reset all settings

Fig. 160

In this mode, you can choose one of the following options:

“Start application” – if the software starts in a after-crash mode for the first time, select this option. In this case, Navitel Navigator will save all your settiong, but there is a probability that during the incorrect stop a mistake appeared, so the Navitel Navigator will work incorrectly. If the software doesn’t start correctly when you select this option, try one from the options below.

“Restore settings from last successful start” – Navitel Navigator automatically saves all the user data and settings when it works with no exceptions. You can use them to start the software after crash. Note, that the last changes, like settings, last places and favorites lists that were changed during the last work session could be missed.

“Reset all settings” – if no of the options above didn’t make Navitel Navigator start correctly, use this menu item. Note, that History, Favorites lists, all the settings will be missed, but waypoints and Navitel.SMS will be saved.

If the program doesn’t start after all, please, contact our technical support: support@navitel.su.

10. Updating software and maps

10.1. Updating Navitel Navigator

Fig. 161

Attention! The Windows Mobile version of the software can be updated in the automatical mode. Learn more at the chapter 7.5.4.1. “Application Update”.

1. Copy the activation file for the program "NaviTel Activation Key.txt" to a desktop computer;

2. Uninstall the software and remove all the files from a folder with the program, except NaviTel Activation Key.txt;

3. Go to the update page http://www.navitel.su/downloads/, find a file for your device’s operating system and download it to your computer;

4. Install the *.exe file using your PC, or copy the *.cab (Windows Mobile), *.apk (Android) or *.sis (Symbian) to your’s device SD and run it.

5. Copy the "NaviTelAuto Activation Key.txt" to \NavitelContent\License\ folder on your device’s flash card.

Attention! Android version of the software can be updatet in automatical mode if it was installed using Android Market. If it didn’t, you can visit “Download” page in Android Market application and update Navitel Navigator manually.

Attention! GPRS traffic is paid according to your carrier’s tariffs. Software package is more than 10 Mb.

10.2. Updating maps for Navitel Navigator

Attention! You can update maps in the automatical mode. You can learn more at the chapter 7.5.1.1 “Map”

1. Remove from the folder \NavitelContent\Maps\ (or other folder in which the archive with maps which you update is stored) all the files with expansion *.nm3;

2. Download the updated maps on a site in section of updating (http://navitel.su/authorization/devices/) You will need to authorize at the site. If you have no login and password, you will need to register there. Add a device to the list, if you didn’t do it before. You will need to enter a license key which you can find out in the program Main Menu —> the Information —> About the program (Fig. 140);

Attention! The size of the given archive can exceed 500 Mb. It is recommended to use the high-speed channel of the Internet for download.

3. Copy maps to the folder "\NavitelContent\Maps\" at your SD;

4. Carry out procedure of indexation of the atlas (see item 7.5.1.6. “Other maps”).

11. Glossary

Accuracy – the parameter which depends on various factors: number of visible satellites, signal quality, interferences, reflected signals, of the navigator moving speed etc. Most exact readings are expected when reception is carrying out from more than 4 satellites, uniformly located in the sky, and the navigator stands still. The accuracy used for calculation of your current coordinates can be displayed on the screen.

Active route segment — a segment of a route which you are currently move on. Also, this is the distance between any of the two waypoints in a route.

Almanac — these is the data about the orbit parameters of all the satellites. Each satellite transmits these data for all others. Unlike the ephemeris data, this data carry a general picture of satellites' location, and they are valid for several months. The almanac of satellites allows the GPS-receiver to quickly find and receive the signals from satellites, without performing a cold start.

Autorouting (automatic route navigation) – an important feature of the Software, allowing to produce a route to the destination point in automatic mode. It means, that it is enough for the user to just specify the destination point, and the Software will generate the shortest and most convenient route. To take advantage of the autorouting feature it is necessary to have routable maps.

Azimuth — the heading towards the destination point from the current position, measured in degrees and counted clockwise from the direction to the North. The azimuth can be graphically displayed on the PDA screen.

Cold start – is when you switch on the GPS-receiver for the first time, or after it moved far away from its previous location. In such case the receiver does not have any almanac and ephimeris data, or these data must be updated. Hence, the GPS-receiver starts loading the almanac, then the ephimeris. This process takes time — several minutes or more.

Datum – system of coordinates, based on ellipsoid. In such coordinates, when one specifies the latitude and longitude of some point in the area, this is actually referred to as the coordinates of the projection of this point on the ellipsoid. In different countries, a bit different ellipsoids are used. For this reason, it is not sufficient to specify the coordinates of some point in order to assess its location exactly. It is also needed to specify in what datum these coordinates are set. A wrong datum can generally lead to errors from 10 m to 1 km. Popular Russian maps, as a rule, are published in "Pulkovo-1942" coordinates system, while the GPS uses the datum WGS84.

Distance — length (in miles, meters, feet, etc.) between two waypoints, or from your current position to a waypoint.

Ephemeris — are the data used for precise correction of orbit parameters and time for each satellite. Each satellites transmits its own data only. These data quickly become outdated. Thus, the almanac gives to the navigator some general idea about the location of satellites, while the ephimeris provides very precise information.

Estimated time of arrival — estimated time of the day/night when you will arrive to the next waypoint

or to the destination. It is possible to see this time on the GPS screen while moving.

Estimated time of the trip – estimated time needed to reach a certain waypoint, or the next point in a route. It is possible to see this time on the GPS screen while moving. Calculation is made according to the current speed and heading.

Go to – function leading to the required point on the map both during the autorouting and search. While moving, the screen will show the remaining distance to the waypoint.

GPS (Global Positioning System)—is a global system used for location identification. The navigation system uses the data received from the satellites, which are continuously transmitting the navigation signals. The purpose of GPS is to provide high precision data on navigation and time to mobile and stationary objects in the air, on ground and on water.

Heading towards Northern magnetic pole — the heading shown by a regular magnetic compass.

Hot start – the process of starting the GPS-receiver which had been turned off for less than 30 minutes. The initialization of the navigator when it's switch on is done in a fast manner, because the receiver immediately starts to search for satellites using the almanac, and there is no need to collect the ephemeris data.

Route – broken line, connecting an initial and final points, passing through some via points, where the direction changes. It is possible to include existing waypoints into a route, or to enter them directly from the map displayed on the screen. When calculating the route, the Software will automatically replace the current destination point, once it's reached, with the next waypoint.

Stylus pen – a tool, which looks like a pencil, used for interacting with PDA's display.

Track — is the actual track passed, a path, or a log file, which is recorded by the GPS-receiver when it is on. The track consists of many points (their number shows how often the GPS-receiver marks the current position, usually it does it once per second, but the newer models may do it more precise). The number of points in a track (volume of track log) tells us about the maximum number of points that one track can have. Each point of a track contains information about the coordinates, altitude over ocean level, time and moving speed of the GPS-receiver.

True heading towards North — direction from any point on Earth towards the geographical North Pole.

Warm start — the process of starting the GPS-receiver which had been turned off for more than 30 minutes. It takes more time to initialize, because the ephimeris data are outdated and the GPS receiver has to gather the ephemeris data from each satellite.

Waypoint — is a point on Earth surface which has its coordinates recorded in PDA's memory. Coordinates of a point can be obtained either through a map calibration process, or by manual input of their values taken, for example, from a topographic paper map. Waypoint can be assigned a name by default (e.g. 001, 002 and so on) or you can choose a custom name (e.g. "House", "Work"), and a custom symbol (from the list provided). The navigator has a function to search through the waypoints (to find the nearest or to find points by name). Also, it is possible to plot the point on the map screen, or to see its coordinates.

Notes

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